BRITAIN'S ONLY MAGAZINE DEVOTED TO THE AMSTRAD CPC 464, 664 AND 6128

No. 20 MAY 1987 £1.00

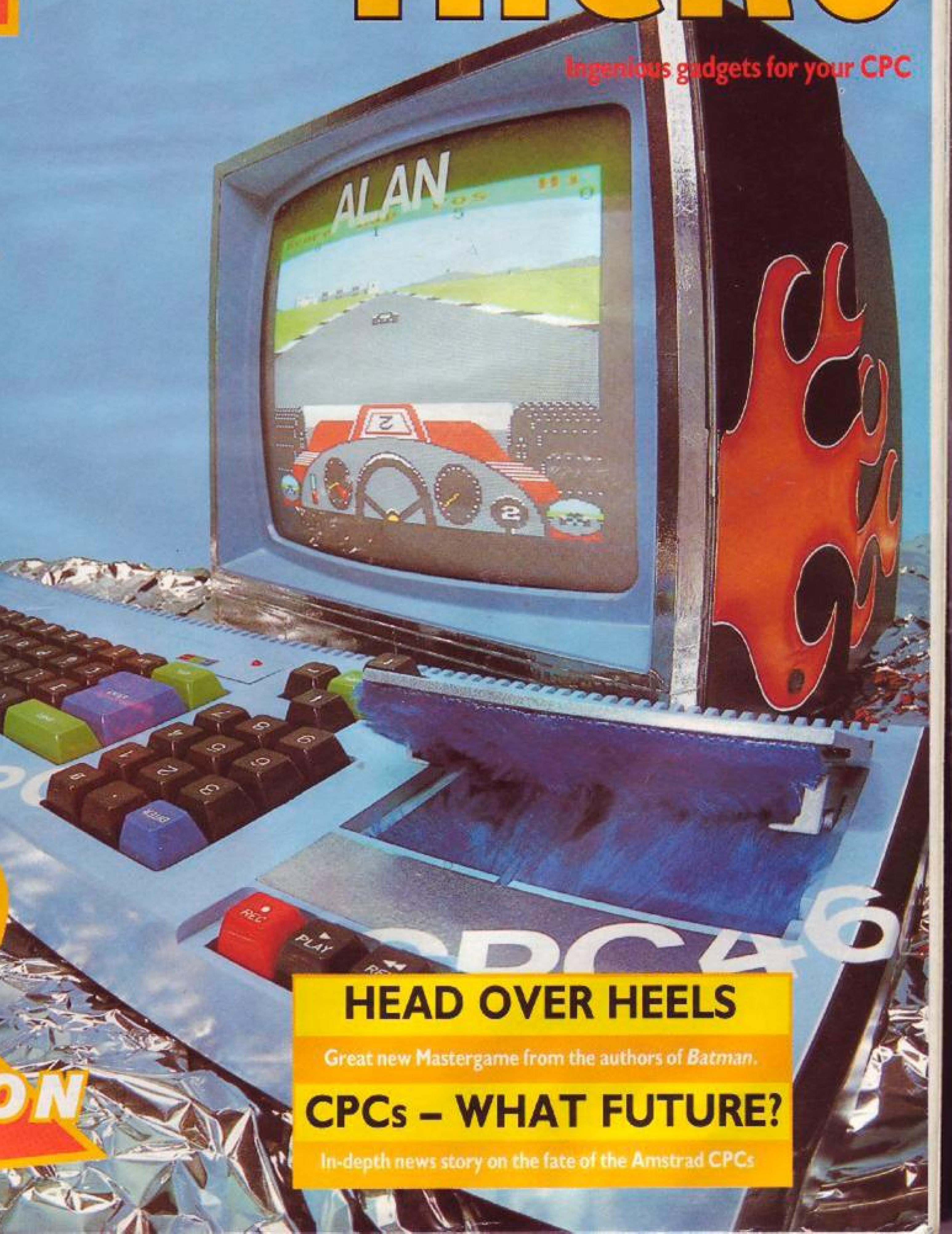
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AMSTRAD ACTION

Amtix readers: see page 5

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THE MOULD-BREAKING MAGAZINE FROM FUTURE PUBLISHING

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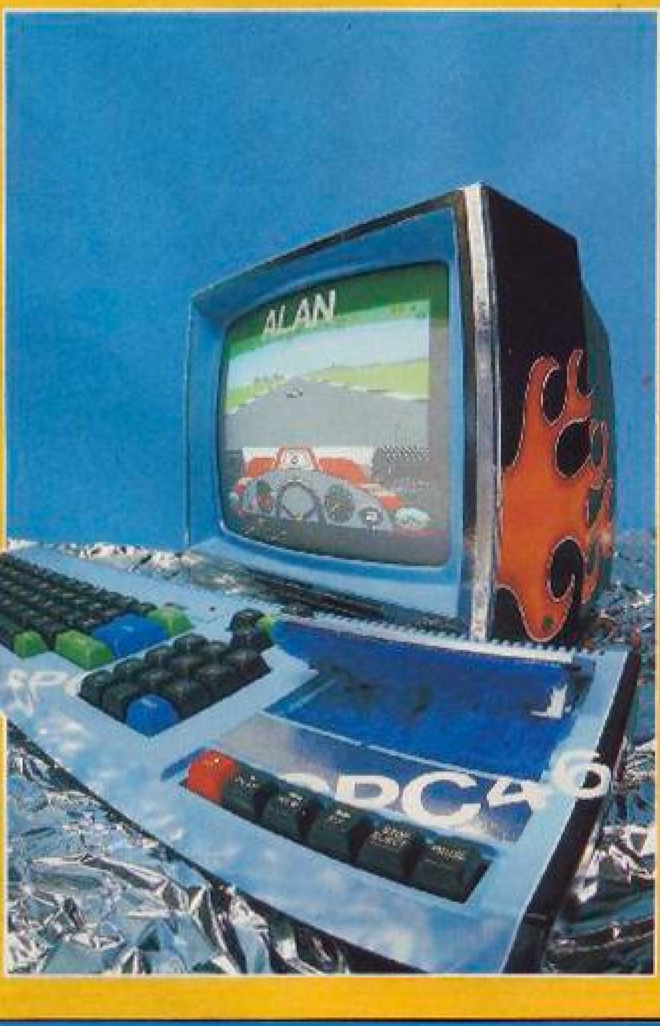
AMSTRAD ACTION MAY 1987

FRONT END

NEWS ● LETTERS

SERIOUS SIDE

SOFTWARE ● HARDWARE ● PROGRAMMING



ACTION & ADVENTURE

GAMES ● MAPS ● PILGRIM



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INTERACTION

CREATED BY YOU AND FOR YOU

WRAPPING UP

THINGS TO BUY ● BYE



Strange new customs

As you see from the front cover we had a bit of fun this month customizing a 464. It was all in aid of our three-page feature on gadgets that are a little out of the ordinary and can bring that personal touch to your Amstrad.

We used RpM's keyboard with the novel upside-down keys (don't ask how or why he did it) and my colour monitor as Trev's technological canvas. We had to remove the internal workings of both to give them their paint job – not to be recommended because it invalidates your guarantee and the innards aren't easy to get back together again. The cases were lavishly treated with spray paint and other artistic tools before reassembly and switching on – at arm's length and with our fingers crossed. If you want a few more details, Trev has some hints on doing up your own equipment in the customizing feature itself.

On the games front, the undoubted star this month is *Head over Heels*. It's by Jon Ritman and Bernie Drummond, the authors of *Batman*, and follows a similar style but is twice as large and packed with even more superb gameplay. *Mercenary* has arrived and fulfilled its preview promise with a real environment and testing adventure task. There's also a great new arcade puzzle game called *Pulsator*, another game which will test both joystick skills and the old grey matter.

As well as the customizing feature there's a packed serious-software section with two new art packages hot off the easel, the new DMP 4000 printer and a 5.25-inch disk drive. In *Day in the Life* a teacher goes on the hot spot – will the Amstrad have helped educate him?

Our special offers are bursting out all over the place: first the Cheat Mode booklet and now we offer you *Tir Na Nog* exclusively and at a very attractive price. Bye till next month, when (we hope) all our computers will be back to normal.

Welcome *Amtix* readers

We'd like to welcome any former readers of the recently demised *Amtix* magazine. We're sure you'll find a happy home here with the brightest and best mag for the CPCs. You'll find unparalleled games coverage, the most comprehensive collection of pokes, tips and maps, lots of special offers to save you money, in-depth coverage of serious software, short and useful type-ins, help with technical problems and probing news stories.

Think of this as your magazine. Many of the sections are produced from readers' contributions, and we're always alive to your suggestions. So if your Amstrad is feeling lonely and unwanted, *AA* can put the power back in its sockets and a spring in its keyboard.

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Telephone 01-221 3592 Telex 895 0511 OnoonoG ref 130 49001

Cover photographs: Anthony Spinks ABIPP, AMPA, Studio Seventy, Bow Street, Langport, Somerset. Telephone (0458) 25 0807

Colour origination: Wessex Reproductions, 382a Wells Road, Bristol BS4 0QL
Printing: Redwood Web Offset, Yeomans Way, Trowbridge, Wilts
Distribution: Seymour Press, 334 Brixton Road, London SW9 7AG
Netherlands distribution & subscriptions: Info-Data Computers, Postbus 97, 3800AB Amersfoort. Telephone (033) 63 0187. Retail price: Hfl 7.90

NOW FROM THE AUTHORS OF BATMAN COMES...



DOUBLE TROUBLE

Hi! My name's Mr. Head. Some say I'm the one with the brains but I don't think my flat footed friend would agree. I'm a real sharp shooter, but without my pal Mr. Heals I'd get nowhere fast…or slow! I can jump like a flea and even glide but Heals is the Daley Thompson of the two of us – he's FAST! Together, if we can find each other, we really do make an awesome twosome, and that's the only way we can overcome the emperor Blacktooth. The last time we entered Castle Blacktooth we found the crowns of THREE of the supressed kingdoms but by that time I'd run out of doughnut ammunition and my buddy was lost somewhere in the Safari world – it was the closest we had come to defeating that rapscallion – we were jumping for joy, splitting our sides, dying with laughter…we were Head over Heals!

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REACTION

Fodder for this month's letters includes Firebird's loading system (again), disk prices (again) and afterwords on our word-processor reviews.

You can write to Reaction by snailmail – the address is Reaction, *Amstrad Action*, Somerton, Somerset, TA11 7PY – or by e-mail. On Micronet we're 045 874 011, and on Telecom Gold 84:txt152. Please remember to say who you are and where (your address). A phone number might be helpful.

Please don't expect us to reply to every individual Reaction letter as well as to produce your next magazine! (You are advised not to mix items for other departments such as subscriptions or mail-order on the same message.)

Kicking it around

Has Firebird got something against disk users? As several 6128 owners have already pointed out, its tapes are difficult to load, to say the least. As if this is not enough, most of their games do not come on disk, and when they do, disk users have to pay £7 or £8 extra *(Druid, Hive)*. How can they justify this when disks now cost £3? I'm sure I'm not the only person to have boycotted Firebird for this reason.

My compliments to Tony Hoyle for his *Trailblazer* pokes. They are your best pokes since the *Sorcery* onces many issues ago. I have walked on water ever since! His Ramdisk program (AA-16) was excellent too.

Please keep the type-ins at four or five pages. They're one of the first things I look at.

Now for the complaints. First of all, can you try to be more objective on football games? It's obvious that none of the AA staff like football. Let's have a proper review rather than a statement of what the game does *(Footballer of the Year)* or just plain blind hatred *(5-a-side Soccer)*. It's a fact that no football simulation yet compares to *Matchday*, but a bit of constructive comment never harmed anyone.

I have been a subscriber since issue 3 and have just renewed my subscription (I'm still taking the tablets, though). One gripe is that more often than not I have to wait several days after AA has hit the newsagents for the postman to deliver my copy. Can you either send them first-class or delay sending the newsagents' copies?

Finally, there is a bug in *Fastform* (AA16 cassette). When formatting a disk to CP/M (System) on a two-drive machine, instead of cataloguing drive B (the one with the blank disk in it), when it's finished it catalogues drive A. It just shows that even you lot can make mistakes!

Keep up the good work and keep drinking the cider.

Ian Linacre
Davyhulme, Manchester

In our opinion £10 for a tape and £15 for a disk is ridiculous. But they seem to get away with it. We agree Tony Hoyle deserves kudos.

Bob Wade is a Wimbledon fan – are you insinuating that Wimbledon doesn't play football? – and says RpM knows absolutely nothing about football.

Our publisher is reviewing the subscription system – stay tuned. As for Fastform, *RpM concedes there must be a 0 instead of a 1 somewhere. Watch for a patch, coming your way soon.*

Spaced-out target

I agree with your *Space Harrier* review totally (AA 17). What's this first-day target? Surely Bob Wade can get more than 500,000! On my third or fourth go I beat a million points. My average score is about 1,400,000 and my highest, after two days', not continuous, play is 2,309,461. Why don't you bring back the high-score pages for recent games like *Space Harrier*?

Even my 11-year-old brother scores more than a million points. Level 7 is called IDA.

Ian Leitch
Blandford Camp, Dorset

Are you calling Wade a wally?

Which DMP is it?

How pleased I am to see *AA* mature into the magazine it should have been twelve months ago. I've stopped buying the rivals ever since the dramatic improvement.

I recently bought a DMP 2000 printer and *Mini Office II* to join my 6128, the idea being the preparation of drafts of scientific reports. This package is ideal for my purposes, but the printer is not always predictable when in bit-image mode. Underneath it bears the legend "Amstrad DMP 3000". What are the differences between the two models, and how can I tell which one I've got? Is there a control-code sequence I can send to find out?

I think you could have been a little less dismissive of the word-processor in *Mini Office II* (*AA* 18). It might not be up to the standard of *POET* on the Vax II/780 mainframe which I'm accustomed to, but is nevertheless an excellent system.

Ken Hargreaves
Ulverston, Cumbria

Dip-switches are the easiest way to distinguish the DMP 2000 from the 3000. The 2000 has one bank of eight little switches, the 3000 has two. If you really do have the DMP 3000 you should write to Amstrad and swap the manuals in order to set these switches properly.

Konix sounds helpful

I bought a Konix Speedking joystick on 4 December (£15 of my birthday money). After two weeks I dropped it. There was no right movement, and I could hear something loose inside. I brought it back to where I bought it and was told that because I had dropped it, it was just hard luck. I took my screwdriver and opened it up. The microswitches are supported on four tiny supports: one of these had broken. Small wonder – the thing looked so small anyway.

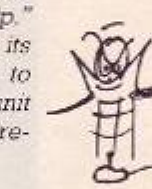
I now have a Euromax Professional, £29, and it has endured several knocks that would have broken the Konix.

John Lawless
Dublin



"HMM, JUST MY LUCK – THE JOYSTICK'S BROKEN..."

Both the joysticks you mention are ones we recommend. We rang Konix about your problem. Diane Jones said, "It shouldn't have broken just with a drop. We expect it to stand up to some rough-and-tumble. We'll see if we can help." So, John, post it along with its box or proof of purchase – to Konix Computer Products at unit 13, Sirhowy Industrial Estate, Tredegar, Gwent, NP2 4QZ.



Author!

I was rather surprised to read a review of *Back to Reality* in which you stated that Steve Elwood wrote *Obsidian*. While plenty of companies have copied the game and idea (Quicksilva advertised one of its games and mentioned "Obsidian II"), this is the first time that the game has actually been credited to somebody else.

You may be interested to know that I am currently designing a follow-up to *Obsidian*. This will be written by Paragon Programming across all the main formats.

I would be grateful if you could mention the mistake in your magazine, and point out it was in fact me who wrote *Obsidian* (and Steve Elwood deserved all the credit for *Back to Reality*).

Tony Warriner
London SW11

Apologies for our error. We look forward to your real sequel.

Up but never down

In the music industry, sales of singles are low, mainly due to compilation LPs such as the *Now that's what I call music* series. Surely computer-games sales will follow.

Being a 6128 owner, if I can afford it I buy a disk utility or game other than the cassette version – which isn't very often, due to the disk price. What makes me angry is that the cost of a blank disk went down to around £3 from £5 – four



months ago. So when will we see a general recommended retail price of £13 instead of £15?
Never, that's when. The software companies will politely scoop off the savings they make. It would be quite a different matter if the blank disk price had gone up, wouldn't it!

Why won't software houses believe that if they lower their prices they will sell more games to make a larger profit? Companies like Firebird and Mastertronic prove this, yet others don't want to follow. It's ridiculous that prices are exclusively either £2-3 or £10 – nothing at all in between. Surely the lower the price of a game, the less the temptation of a kid to pirate it.
Lee Russell
London E7

■ I'd just like to remind Boots and WH Smith that three-inch disks now cost £3 each from Amsoft, so they can stop making excessive profits by trying to sell them at £5 or £6.

This is the fist time I've written to an intellectual magazine (like wot yours is), so you'd better publish my letter to encourage me.
SD Green
Anlaby, N Humberside

We quite agree with both of you. But we have little say in the matter. It's up to you the consumer to make your feelings known to the software houses with a bit of positive action. Why not support new price brackets like Gremlin's West Bank *costing £4.99 on tape? (Disk is still £5 more – but a new bracket.) Or deal with Durell direct and you can buy its games on disk at the same price as tape.*

Tasword: it's loved in Bracknell but loathed in Brackley

I have been most impressed by the way your magazine has improved over the last year or so, but your article on word-processors (*AA* 18) removed some of that impression.

I realise that any such article must be subjective and the writer will tend to favour the program with which he is most familiar. I use *Tasword 6128*, not necessarily using all its many features, and I did notice errors and omissions.

Quite rightly your table states that *Tasword* does not offer unlimited file size, but then who wants a file of more than 10,000 words?

The table says wrongly that one cannot undelete a line. I have just done it (Control-←). It says one cannot print selected pages or blocks – right, but it is much more versatile, allowing one even to print selected lines or blocks of lines. Tabs are on continuous display at the bottom of the screen. To rename a file all one has to do is save it with a different name.
Geoff Snell
Bracknell, Berks

■ *Protext* has always allowed "Print some pages" – see its Set-print options. Which version of *Tasword* were you reviewing?

Tasword a "tranquil introduction to word-processing"? God help anyone who forgets that a second carriage-return is needed to delimit paragraphs while justifying text. Block move means only whole lines. One can hardly recommend that people spend £25 to learn what hard spaces are, watching it totally wreck user-justified text.

When I encountered *Protext* I urged members of a user group to chuck their copies of *Tasword* in the dustbin. Say no more! *Tasword* is an awful bit of coding, hence the low price.
HMV Williams
Brackley, Northants

Stock story

Way back in issue 10 you said issues 1-4 were out of stock. Yet nowadays 3 and 4 are available. Why can't you do the same with 1, 2, 6 and 7?

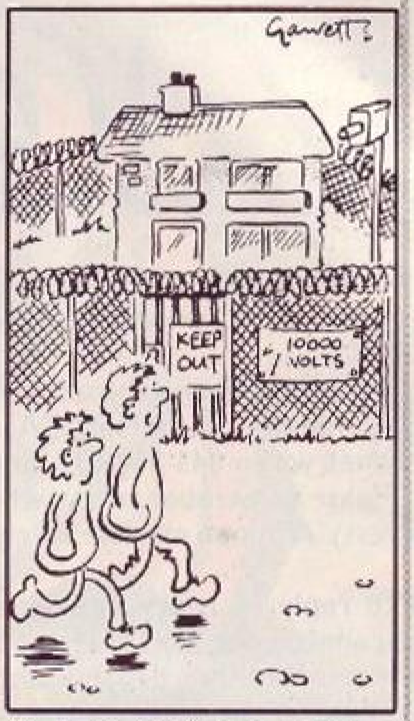
Are there any decent American football simulations on the market? Is *Head Coach* or *Superbowl* available yet?

After sending off for *Big League Soccer* by Viper, I was disappointed to receive a letter saying you had no more and that your "suppliers are unable to get any more copies". Why? Has Viper gone bankrupt? Please could you give me more advice on where to get it?
Mark Reynolds
Capel St Mary, Suffolk

We've just had a few bundles of issues 7 and 8 returned to the Old Barn by a rather slow warehouse in Holland. That was also what happened some months ago with numbers 3 and 4, but it won't happen again. All the 3s have since gone. As this sentence is being written, the absolutely last copy of number 11 disappeared from the shelf to be posted to somebody. Stop press: numbers 13 and 15 have also run dry. So the updated out-of-stock list is: 1, 2, 3, 6, 11, 13 and 15.

Two Januaries have passed with no sign of the promised Superbowl *for the Amstrad. Nor have we heard from* Head Coach.

Viper tells us stocks of Big League Soccer *are again available, but on disk only. So if you'd like to re-order from us ...*



"I GATHER HE'S GOT A FULL SET OF AMSTRAD ACTION"

■ For Paul Nicholls (Reaction 17) I have issue 1, which I would gladly swap for Mastertronic's *180*.
Paul Partington
5 Sleepbrook Close
Wimborne, Dorset
BH21 6QE

■ I (tears in eyes) am willing to sell issue 1 – the things people do for money) for £4 and issue 2 for £3. Send the money with an enclosed *Amstrad Action*-sized sae.
Barry Marks
54 Portree Drive
Holmes Chapel, Cheshire
CW4 7JB

We can't very well advise tens of thousands of readers to send cash when Barry has only two mags to sell. Best to write first to see if you're lucky. Unfortunately Barry doesn't seem to be on the phone.

Summary conviction

Who invented the summary section? Whoever agreed to it, please change your mind. It is pathetic. We get a nice ratings box and the usual good news and bad news, but the write-up is like a cassette inlay.

How come the *Graphic Adventure Creator* wasn't listed in your choice of fabby software and hardware in the Christmas issue? Thanks for doing an article on how to program adventures. I am quite new to these and prefer games where you have a lot of character interaction. Hot Tips and Type-ins are brilliant.

Is *Paperboy* available for the Arnold?

Many thanks to Firebird for changing my version of *Thrust* for a different one (no loading music, though) which now runs quite happily on my 6128.
Paul Langton
Matlock, Derbyshire

Summaries are not meant to be full reviews, Paul – space is limited. But these games are fully tested, and the ratings indicate how good or bad we found them.

GAC falls under the Pilgrim's purview. He thinks it's an excellent utility and would certainly recommend it. Unfortunately in the crisis of composing the Christmas collection he was somewhere in the Far Beyond, out of range of his bleeper.

Elite is still working on converting Paperboy *to the Amstrad. Looks like a summer job.*

Read this, Firebird! Must be nice to get a bouquet for a change!

Try before you buy

I hate spending days typing in games and "utility" programs and finding that they are totally boring. Yours are short, to the point and in the main interesting.

Your idea of being able to use the *Pendown* program three times is wonderful. With so many programs costing £15 or more on disk (I have a 6128) I hesitate before shelling out the cash for a game I might not like. It would be really good if manufacturers were to do the same as you with the

Mastergames squared: solution

Here are the answers from PB Green of Pontefract to his wordsquare puzzle in Reaction 19, made up from past Mastergames. Pretty tough, some of them!

answer	*AA issue and Mastergame*	
Buddha	1	Way of the Exploding Fist
Vorton	2	Highway Encounter
John Marsh	3	Marsport
Bucha	4	Yie-Ar Kung Fu
Thargoids	5	Elite
Switches	6	Spindizzy
Crusader	7	Rasputin
Scooter	8	Get Dexter
Binoculoids	9	Bounder
Belezbar	10	Heavy on the Magick
Magic Knight	11	Knight Tyme
Space Wheel	12	Starstrike II
Shareth	13	Doomdark's Revenge
Trampoline	14	Revolution
Golem	15	Druid
Questor	16	Gauntlet
Stomper	17	Starglider

three-shot demo, or playable demos on a tape as you did at Christmas. You could then get the feel of the game, and if you liked it, buy it. If you didn't like it, scrub it and keep the tape. How about it, all you software houses?
Iain D Martin
Newtonstewart, N Ireland

Revolutionary

I think you were too unfair in your view of *Jailbreak* by Konami (AA 17). It isn't that hard: I can get onto stage 3. How do you like that, Mr RpM?
Danny Pampel
Woodley, Berks

"You're not the first to beat me," admits RpM. For him the real enjoyment of a game is not so much in playing it as in hacking it.

We do test them

I am writing to complain about the number of Cheat Modes that don't work. Is it three or four out of five that don't work? One of the biggest reasons why I buy this great mag is for the Cheat Mode section.

I would not mind checking through them before you publish and trying them out on my computer with the game (for a few coppers). My dad can mend the Basic inside the program, but if the data's wrong I've had it.

By the way, I've got every issue of your mag, including issues 1 and 2, but I'm going to keep them, ha ha.
John Bainbridge
Lichfield, Staffs

We cannot print Bob Wade's initial expostulation. He eventually calmed down to say, again, that we do test them before printing, and that if we make a mistake, we print a correction, but that he can't vouch for your typing, John.

Brave but not brief

During an all-night session with *Strike Force Harrier* I managed to reach the square where, according to the grid map, the enemy HQ would be. Instead of finding it I found yet another bug, but this one meant the game could never be completed.

It can be described in two ways. First, when you fly into the latter half of the HQ block you receive for no reason the message Foftrac weak. You are advised to fly on a heading of 45°. You are meant to emerge in the last block you left, but in reality you emerge 32 blocks away – two hours flying time. The second way is that the enemy HQ does not exist.

I phoned Mirrorsoft and was put on hold for 20 minutes. I wrote a strong letter to return the game for a second time. A couple of weeks later a gentleman who claimed to be be a representative of Mirrorsoft phoned me and admitted the enemy HQ did not exist: a problem with the sprites, he said. He also said that when the programmer had ironed out the bugs he would send me a disk version. This was in September, but I've heard nothing since.
Shaun Stockley
Skelmersdale, Lancs

We hope we've accurately summarized your three-page epistle, Shaun. For future reference, always find out the name of the individual you speak to when phoning large organizations. How can we follow this up for you?

A very helpful Jon Noriedge at Mirrorsoft told us that the enemy base is a bunker, looking from a distance like other rocks. But closer up you can see its hangar doorway. Drop a bomb through it – game complete.

Jon said if you fly off the top of the world you're meant to wrap round, reappearing from the south, but not vice-versa. The game is not meant to be easy. The faulty sprite appeared only in the rare coincidence of an explosion on the ground, your fire and enemy fire simultaneously. Only four people have reported this. The first they couldn't reproduce, and turned out to be a fault with the Amstrad. When another report came, the programmer was brought in, and zapped the arcane bug in January. But "only the brave suffer from it, because only the brave get that far." If you're really one, Mirrorsoft will replace your disk.

Weather reports

I am interested in receiving weather-satellite pictures via the Amstrad 464. Is this possible? Can you advise?
David Bolton
Micronet 219 993 403
Enniskillen, Ireland

Has any reader launched into this subject?

Johann Sebastian disk

I can offer an interesting entertainment to CPC owners who possess Rainbird's excellent *Advanced Music System* disk. I have transcribed all six of JS Bach's Brandenburg Concertos as files which may be loaded into the *AMS* Linker module and played straight away.

As a straightforward demonstration of the musical abilities of the Amstrad this disk performs well enough, but with the computer connected to a stereo hi-fi the effect is downright astonishing.

If readers are interested they can send me a formatted blank 3-inch disk plus a copying fee of just £2, including postage, or I can supply the disk myself for a total of £5.95.

This is in no way a commercial venture. I am merely very pleased with what I have done and would like to share it with as many fellow enthusiasts as possible.
Rob Baxter
50 Milton Grove
Manchester, M16 0BP

Play on, Hermann

The names that owners have given to their machines range from the obvious to the unfathomable to the mildly amusing: Ammy, Speccy, Arnold, Joyce, Hermann, Idiot, etc.

However, as a part-time musician, I have often wondered why the 6128 has never been known as a Strad. After all, we spend many hours fiddling on it, use string variables, and when things go wrong are often heard muttering, "Oh, pluck it!" Furthermore, we've all heard about the Stradivarius Hotel – that vile inn down the road, haven't we?
Norman Appleton
Aylesbury, Bucks

SOFTWARE WINNER

We checked with your innkeeper, who does not see why he should suffer your vile joke. He fumed: "Yeah, who de' men you hint come inna my pub?" He insists he's never seen Arnold, Joyce or Hermann. And he will take only cash, not software vouchers.



"I USE IT ALL THE TIME FOR ANSWERING LETTERS"

Gauntlet gripe

After reading your review for *Gauntlet* I went straight out and bought a copy on disk. Great and super game. But my copy seems to have a few bugs in it. In some rounds there is no way to go to the exit (after killing everything). And after the 50-odd rounds the computer goes on to a blank screen while the disk tries to load the screen data (as you know, new screens have to be loaded after each round is completed). And that is the end of my game; I have to start again.

Is there a bug in the program? I have two Amstrad 6128s and there's no way both my computers are not working properly – less than three months old.
WLR Wong
Micronet 919 999 136

Yes, it has to do with the peculiar protection system used on this game, which (according to RpM) involves speeding up the disk. If the computer trips up, it does not check its error but just continues.

The system certainly suffers from reliability problems. Ask US Gold to replace your disk.

■ *Gauntlet* is in my view the best game to have been released for the CPC. I have had no less than three copies from WH Smith but have had to return each one because they all kept crashing. At random – different times, different levels, one or two players made no difference. What a pity, as I have found the game very exciting, challenging and addictive.
S Filipovic
Gloucester

Penpals, please

■ **Robert Sturt, 17 Kings Park, Dereham, Norfolk, NR19 2EH, tel Dereham 66833** – age 14, would like to learn to program utilities and games in Basic and machine code.

■ **A Beard, Clevedon Bungalow, Banks Green, Upper Bentley, nr Redditch, Worcs, B97 5SU** – needs help writing a program for his 6128.

■ **Stephen Tytler, 16 Scotlands Close, Haslemere, Surrey, GU27 3AE** – is "13, a good games player and pretty good on programming for a beginner."

■ **Liam Gallagher, 133 Lismore Park, Waterford City, Eire** – welcomes German penpals also, "as I am quite fluent in the language. Nicht sehr viele!"

Not in a bind yet

I subscribed in December and have not yet received my free Mastergame and binder. Where are they?

Full marks to Alexander Clark. His *Sound to light* type-in (*AA* 18) is amazing.

Mark Saunders
Weybridge, Surrey

PS— It's the fifth of February today. Is that the right address on the envelope?

We had a flood of requests for binders, and ran out of stock. More had to be made up, which took a while. But as soon as the big pile of big boxes was delivered to us, we posted yours to you – so we'd have space to breathe in the Old Barn! But you should have had your Mastergame long ago. It would have been helpful if your letter had said (a) your subscription number or (b) which game you wanted or (c) your telephone number.

Thanks for dating your letter! Everybody seems to have reacted to my little invective about timeless correspondence, but you are the only one to date yours a dozen times.

And yes, you can conclude that you did address it adequately: by now the local postman knows where "Amstrad Action, Somerton, TA11 7PY" is.

Awaiting Quazatron

I saw a game on my friend's Spectrum that I thought was very original and well worth the price. This game was *Quazatron* and it combined scrolling *Spindizzy*-type landscapes with arcade action and thought-invoking challenges. Are there any plans to convert this onto the Amstrad?

Adrian Rose
Heage, Derbyshire

The publisher, Hewson, has no plans to convert this game to the Amstrad as far as we know.

Cartoons and Best Byte

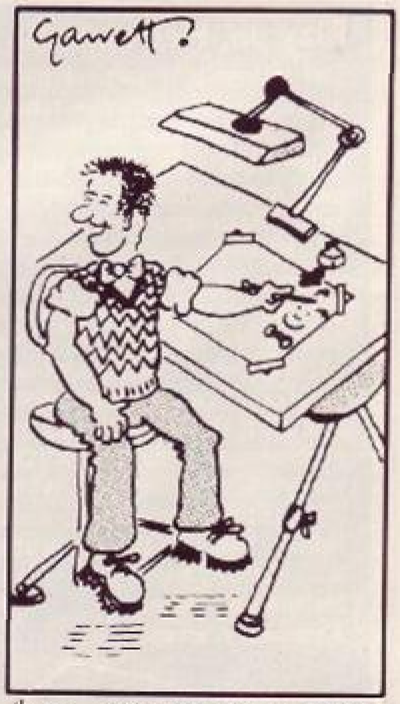
Who is the person who signs himself Garrett in the Reaction drawings? I have checked the staff list at the beginning of *AA* and cannot find him.

In most of your ads there is a phone number, but the Best Byte Software ad has only an address. Could you please print it, as I have been waiting a month for a game I ordered, and I want to check on it.

I would like a 14-year-old penpal in the Galway area.

Alan Crowley
1 Hillcrest Court
Knocknacarra, Galway, Eire

Chris Garrett is a freelance cartoonist who lives in Birmingham.



"HEY – GET ME THAT ROBERT REDFORD PHOTO – I'VE GOT TO DRAW A LIKENESS OF MYSELF"

Let's ask him to draw himself.

We rang Best Byte for you. Peter Lees runs it from home at Tunbridge, Kent. He's an A-level student, so isn't there all the time to answer the phone – that's why he doesn't print the number. His books showed your order was posted two days before we contacted him. So if it has not reached you by the time you read this, please let us know. In order to avoid future problems, Peter says his ads from now on will be confined to products immediately available from his suppliers.

Misfiring again

I have taken back so many Firebird games back to our local retailer that they now refuse to exchange the games, so I'm stuck now with a useless copy of *Star-Firebirds*. What's to do? I will not accept the usual explanation of bad head alignment or incorrect volume levels.

I'm 14 years old and I have an interest in electronics and computers. It would be nice to have a penpal with similar interests.

Matthew Liuler
48 Nicholson Ave
Hurdsfield
Macclesfield, Cheshire

Irish users, unite!

Could I tell your readers of the setting up of a club for Amstrad users in Ireland? It will consist of a monthly newsletter, with latest news, tips and listings; a free utility program every two months; games and utility programs and hardware at a special discount for club members; we will supply all the good utilities that are almost impossible to get in Ireland; we will be able to help 6128 owners to get their games onto disk: eprom programming and blowing service.

We believe it will be the only club in Ireland for Amstrad users, and would like anyone who would be interested to write to me so that we will be able to put a price on the club membership when we can gauge the extent of the user base in Ireland, which we believe to be very big and growing.

James R Cahill
17 Pairc Mhuire
Ferns, Enniscorthy
Co. Wexford, Ireland

Laser Basic breakthru

I am a newcomer to *Laser Basic* and find the manual confusing in places. If there are any *LB* users out there who want a penpal to swap tips etc, please contact me.

Is there a bug in US Gold's *Breakthru*? I can't seem to get past the bit at the beginning of the first level. When I reach the hills with the road leading down and I try to go down I crash and have to start again no matter how far away I am from the sides of the hills.

Mark Lee
3 Leopardstown Court
Stillorgan, Co. Dublin
Eire

You can't go down; you have to jump over the hills – unlikely as it may seem. It's a very unlikely game.

Bouncer bounces in

Could you please review my enclosed game *Bouncer*? It's available only from mail-order. It costs little more than a blank tape: £1 including postage and packing. (Cheques payable to Daniel Varcoe.)

Daniel Varcoe
Danvar
38 Tregolls Rd
Truro, Cornwall, TR1 1LA

BW and RpM loaded it up. Here are their words of wisdom:

"The way the ball bounces is excellent, realistic; loading screen and music quite well done. Guiding the ball left and right to hit pads at the bottom of the screen in a specified order is quite an enjoyable test of reactions, but its interest will rapidly pale.

"Not a bad effort, but it needs further development. If this were a sub-part of a bigger game, it would be a lot more fun. But then the £1 would be just a sub-part of a bigger price."

And look what else arrived in the same post ...

We cannot, of course, accept responsibility for relationships between readers and user clubs or penpals – so use common sense.

Helpful Tigress

Helpline, brilliant idea. Doubtless the *Amstrad Action*-reading gamers, poke experts, serious users and programmers realise that good programs and the ideas for them don't grow on trees.

Tigress, as many of your readers will know, specialises in quality game origination, design and production. This involves a great deal of time, work and expertise. On the creative side, Tigress pools the expertise of a number of talented people from games designers, animators and programmers to musicians, graphic artists and play-testers.

Because Tigress' standards are extremely high, our team is an exclusive one and the demand for our work ever increasing. Consequently Tigress needs to expand its register of talented people who wish to be involved in the production of the games *Amstrad Action* raves about.

Something your readers may not know is Tigress' interest in helping people with innovative ideas for products. In the strictest confidence, ideas and projects can be discussed with professionals who can offer advice on copyright, research and development, production, marketing and promotion and on occasion financial backing.

We don't expect to be able to help all of your readers become the subject of your reviews, but we're familiar with the difficulties which face the budding games designer or inventor. If we can help cast your Helpline, we'll be happy to.

Jeven
Tigress Designs
25 Burmester Road
London SW17 0JL ☎ 01-946 7870

Tigress is behind games you've seen from Ariolasoft, Domark, Firebird, ... And Jeven explained that since nobody else has the same Christian name as his, he doesn't confuse people with his Czech surname.

All-amazing awards

Why don't you do a new year's honour list? For the Craftiest Conniving Cheater award, I nominate Phil Howard. Every month you see pokes coming from him, and they are of the most favourite games.

For the Exclusively Excellent Entertainment award, I nominate *Spindizzy*. It is always a game of distinction.

For the Right Royal Rubbish award, *Bridge-it*. It is a rubbish game.

For the Absolute Amazing Adventure award, *Warlord*. It's great.

For the Diabolical Distressing



Dismissal award, *Planet of Death*, a game that will always be rubbish.

And for the Loveliest Literal Letter award, I nominate me. I'm great, I know.
Stephen Parkinson
London N16

Fans of what zine?

We have produced a fanzine called Amstact, which is short for Amstrad Contact, this is because we intend to run it as a User Club Magazine and put users in contact with other users. The magazine will cost 75p plus Postage but we hope to get more pages and to lower the cost. Special offer to *AA* readers, for 80p we will send you the first issue and we will pay the postage.
Mark Tyson, Peter White
5 Nottingham Close
South Anston
Sheffield, S31 7BP

And after what you say about us on your third page!

Battle of Rotterdam

Help me, Reaction! My Arnold has started world war III with me! I went to the store to buy *AA* 16 (January) but it wasn't there. I went home and apologized to Arnold. His speakers started bleeping and I heard a mean growl, so I ran to the store and bought another mag (sorry), went home, showed it to Arnold and almost ended up in the hospital. Could you tell me how and where I can get *AA* 16 and what it will cost me, or recommend me a good heavyweight psychiatrist for Arnold?
M de Clerck
Rotterdam, Nederland

A quick reaction here: emergency supply of AA 16 is winging its way to you. To keep Arnold permanently at bay, see special address on Line-up page for Dutch subscriptions.

Afterword on *Pyraword*

Thank you for your review of *Pyraword* in *AA* 18. Yes, *Pyraword* is very fast, and had you used the disk version instead of the tape version transferred to disk, you would have noticed one major difference: the disk version uses some special routines to speed things up when reading a file. Loading your 10k program would not have taken 12.6 seconds but a quite amazing 3.5. The time for merging a file would have gone down from 13.0 to 4.5.

Your concern about the two-keystroke sequence needed to reach the beginning or end of a document can of course be solved with the *Pyraword* keystroke memory feature. The function keys can be programmed to hold commands as well as standard characters. Example: to set up f7, enter the following keystrokes: <Enter> <f7> <Control-V> <B> <Enter>. On the 464 use the small Enter key. Now every time you press the f7 key, you will reach the top of the document.

Note that these keystroke memories can be saved in a file which either is automatically loaded when *Pyraword* is started (if you name the option file `WPSV-OPTS.USR` or can be loaded manually, with <Control-Z> <L>.

I'd be happy to answer any questions on *Pyraword* or *Pyradev*.
Lars Osterlind
Pyramid-85
7 Belmont Park Ave
Maidenhead, Berks, SL6 6JX

Disk users will be happy to read your news. For review we used the version that Gremlin sent us.

Stuffing data

It's Mr Xuff again, or whatever you would like to call me. Could you please recommend a cassette-based database system for me? I need one which can hold about 1,500 names. Is this possible?
Andrew Duff
Tain, Ross-shire

We couldn't possibly think up 1,500 ways to mis-spell your name, Mr Guff!

Amfile on the Christmas tape is good for 200 records. You could try getting into the code and increasing the limit, but its method of storing information would turn out to be rather wasteful at this level. Try Masterfile from Campbell Systems, 01-508 5058 – unless you're a Scot of the Macdonald ilk!

Mag-nificent

Congratulations on your new-look issue. One complaint though: what happened to the tape-to-disk pokes? I used to love them but they seem to have disappeared without trace. Is Toot responsible?

One last request: how does your "Extended catalogue" work? (Problem Attic 18). I tried it with some Amsoft games but it doesn't seem to work.

Please print this letter. A friend who reads another mag told me that if he sees my letter in *AA* he will switch.
Irfan Akram
London E12

We've never had tape-to-disk pokes except some in Pilgrim. The extended catalogue applies to tape only.

Hello, friend!

Putting it on the line

Is it possible in future issues to give a little more info about on-line computing? I cannot recall the last time I read anything relating to it.

The mag gets better and, I am pleased to say, less infantile each week. Keep up the good work. (I'm 10 weeks from being a grandfather.)
P Maskell
Market Harborough, Leics

This note came to us over Micronet, so you can see we're practising before we preach. We hope to introduce a regular e-mail and comms feature soon.

Helpline

A growing number of eager Amstrad experts are joining the *AA*Helpline, ready to offer help to readers having problems.

If you want to offer help, just send us your name, address, phone number (say so if you don't want it to be printed) and subject on which you want to help. Please write on a postcard or the back of a stuck-down envelope. The peculiar stationery requirement will greatly help the administration of the section. Send to: **Helpline, *Amstrad Action*, The Old Barn, Somerton, Somerset, TA11 7PY.**

If you are asking for help, make direct contact with the appropriate Helpliner – not your ever-lovin' (but harassed) editor. By post, you must include a self-addressed stamped envelope for the reply; otherwise you won't get a response. And if you telephone, stick to socially acceptable hours!

Basic, sound, graphics (animation and collision detection), interrupts, tape and disk filing, printer commands, *Protext* – 464
Gavin Manning, 20 Windsor Rd, Wanstead, London, E11 3QU

C&C *747*, HNC Computer Studies, serious users
John Wharram, 61 Silver Crescent, Chiswick, London, W4 5SF

machine-code, CPM, hacking – 6128
Tony Hoyle, 11 Dorset Rd, St Annes, Lancs, FY8 2ED ☎ (0253) 72 7368

Basic, machine-code, especially graphics – 464
PJ Higginson, 194 Turton Rd, Bradshaw, Bolton, Lancs, BL2 3EE ☎ (0204) 58907

Basic, some machine-code (will print listings for 50p + 5p/page +sae) – 6128
Andrew Smith, 5 Station Rd, Foggathorpe, nr Selby, N Yorks, YO8 7PU ☎ (0757 85) 540

Basic, simple machine-code
Duncan Ellis, 6 Clifton Terrace, Ilkley, W Yorks, LS29 8ED

Laser games, assemblers, firmware
Martin Packer, 393 Whitton Ave East, Greenford, Midx, UB6 0JU ☎ 01-935 6600 x4283 or 01-423 3452

Spellbound, Eidolon, Dragon's Lair
Scott Miller, 7 Inverness St, Drumoyne, Glasgow, G51 4EW

CPM stat, DMP 2000, Cobol, Nevada Cobol, Turbo Pascal, Locomotive Basic, colours from Basic, disk to tape, disk to disk, *Tasprint*, databases – 464
Allen Reavie, 22 Mourneview St, Portadown, N. Ireland, BT62 3AW

machine-code programming
Jim Tripp, 24 Orchid Close, Taunton, Somerset ☎ (0823) 56492 (before 5pm)

machine-code, Basic, Logo, CPM, graphics, sound, most CPC games
PJ Cook, Prestel 011 110 750

research and development of games ideas, copyright, production, marketing and promotion and (on occasion) financial backing
Jeven, Tigress Designs Ltd, 25 Burmester Rd, London SW17 0JL ☎ 01-946 7870

... and, repeating last month's offers to help:

tape loading, using CPM, Minerva database, *Tasword/Taspell 6128, Art Studio, Tascopy, Multiface 2, WordStar, AMX Pagemaker, Planit, Discovery Plus*
Mr R Cope, 171 Honiton Road, Exeter, EX1 3EP

sound (three-channel music, effects etc), graphics in Basic (animation etc), tape problems, flight simulations (he's got them all!)
Cameron Kane, 6 Kilbreck Gdns, Bearsden, Glasgow, G61 4SL

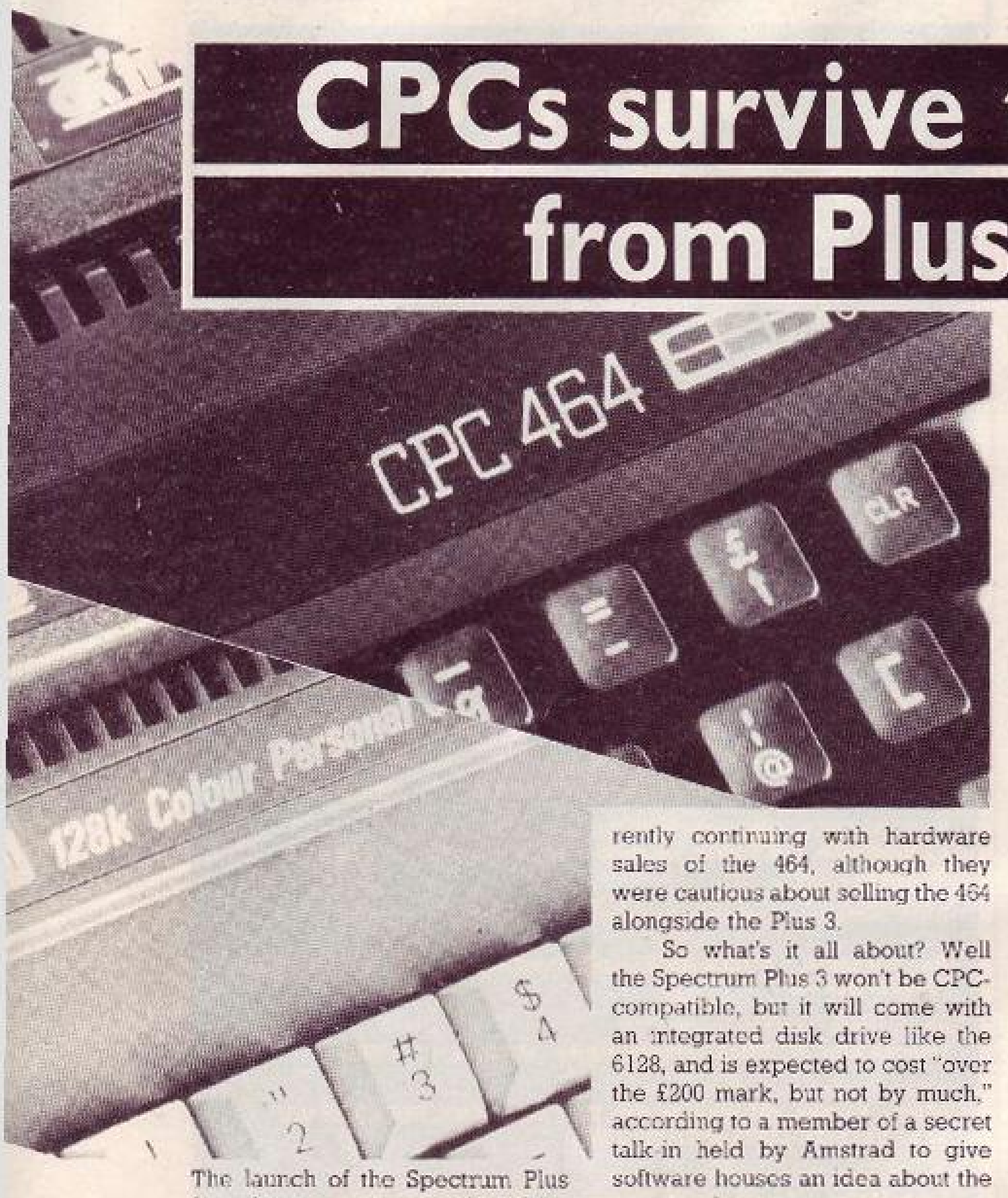
programming (Basic, some machine-code)
Jeffrey Hunt, 2 Deweys Way, Gillingham, Dorset, SP8 4BW

Batman, Druid (use map locations from *AA* maps)
Darren Roofe, Lyndhurst, Station Road, Middle Drove, Wisbech, Cambs, PE13 8JP ☎ (0945 73) 276

AMSCENE

Monthly update on what's new on the CPC scene

CPCs survive threat from Plus 3



The launch of the Spectrum Plus 3 – almost certain to take place around August – is not expected to affect either the Amstrad 464 or the 6128... for the moment.

That's the view from retailers, software publishers and Amstrad itself, who all see the 464 and 6128 riding alongside the Spectrum Plus 3 for the coming Christmas at least. In fact, although the new Spectrum has been well and truly "Amstraddified," now that Amstrad owns the Sinclair brand name, it is unlikely that any of the three machines will be discontinued for a long while yet because of the hefty overseas sales which justify both hardware and software production – in Germany and Holland the 464 is on a par with the Commodore C64 base.

In the UK, both Dixons and Smiths stated that they are currently continuing with hardware sales of the 464, although they were cautious about selling the 464 alongside the Plus 3.

So what's it all about? Well the Spectrum Plus 3 won't be CPC-compatible, but it will come with an integrated disk drive like the 6128, and is expected to cost "over the £200 mark, but not by much," according to a member of a secret talk-in held by Amstrad to give software houses an idea about the new machine.

That means four machines will be available from Amstrad at under £300: the Spectrum Plus 3, the green-screen CPC 464, the colour CPC 464 and the green-screen 6128. Although none of the machines is likely to be dropped by Amstrad because of the overseas sales, the view from the UK is that that is one and possibly two machines too many.

The problem is compounded because software houses have been slow to release products on disk. A WH Smiths spokesman commented that "software sales on the 464 are holding level, and I think we'll be continuing with it," but exactly what hardware Smiths will be selling later this year was "not yet certain – I think we'll leave it for two or three months." Adding that "the prime concern is the machine base and we're still doing very well with the Spectrum," Smiths seem happy enough.

But the general view is that the 464 tape machines will probably be the first to get dropped if and when the axe falls.

Software house Durell said that "of course" it would carry on writing for the 6128 if the 464 was dropped. "Sales on disk are about 35 percent of our Amstrad market, so we're very pleased with it," a Durell commentgiveress commented. "But Spectrum sales are still about twice those of the Amstrad market."

Virgin meanwhile said that it "depends on the product – we find Leisure Genius [now owned by the Branson crew] titles do well on all machines but *Dan Dare* was disappointing on the 6128, and we wouldn't carry on with titles like it for the 6128 alone."

Another software house was unwilling to give details about anything to do with later this year. "January, February and March are so awful for software houses that we can't analyse anything – all we can analyse is 'Are we going to make it through to April?!'"

Odd bunch

Britannia has tried (successfully, we might add) its hand at many ventures on the Amstrad machines. From *Playing Your Cards Right* to holding your Phasor 1 right to having the right Super Romplus romboard. Its latest undertaking is a cops-and-robbers game.

"Coming soon on your computer" at £9.95 is *Dempsey and Makepeace*. A game combining "3D exploration," "shooting sequences" and "random location of objects." It's a TV-licenced game: let's hope it's as spectacular as the series.





What's up, Doc?

Melbourne House has a new lifeform, Doc the Destroyer, coming your way. "Assembled by a crack team of software engineers," he is the first of a new race: a superhero. Doc can be programmed, Doc is strong, Doc can reason, Doc does not like carrot-eating rabbits...

Destroyer's world is fairly desolate: the remaining human lifeforms huddle beneath an energy-dome protecting them from the poisoned environment. Why? Well, obviously, in the future Earth will become "ravaged." Doc ruffles up the community something chronic: "Oyez! Oyez! Hear all about it! The domed city is doomed!" Of course, any self-respecting mob doesn't want that thrown its way: it promptly banishes him.

When everyone's against you, a strong feeling of resentment hits you. Doc, with that much un-superior human nature, seeks revenge. He must attack at the root: the all-powerful Dome Priests. Life is not easy for Doc; the underworld and gladiators must be beaten before the holy men can be approached.

Melbourne's marketing manageress, Jane Denning, says it's "best described as, simply, a role-playing science-fantasy text-and-graphic arcade-adventure combat game." We forgot to mention one thing: there are no rabbits, only £8.95 stickers accompanying the package.

Real time for CPCs

DK'tronics has added to its vast collection of Amstrad computer add-ons: a real-time clock is up for grabs. Maintaining the time of day in seconds, minutes and hours (as most clocks do) it gives you the option of 12- or 24-hour display and a calendar function with day of the week, date, month and year. Incorporated into this chronological bundle is an alarm that can of sounding off from once a second to once a day.

The clock is battery-backed, meaning that switching off your computer's power will not affect the clock. The clock keeps ticking thanks to a rechargeable nickel-cadmium battery; recharging takes place during computer usage. Fifty bytes of unused static-ram is left inside the clock: this can be used for storing other important data.

Software is supplied for you to set up the clock. You can use the clock under CPM Plus, making it particularly useful for date-stamping disks. More information from (0493) 60 2926.

The follow-up to *Art Studio*

"March 31st," he repeated over the phone. "The end of the month," continued the enthusiastic patter. Gary Sheinwald, part of Rainbird's software development team, delighted in telling us about the *Advanced Art Studio*. From the sounds of things it's even more exciting than its predecessor, reviewed in *AA* 14. Judge for yourself:

According to Gary all the features found in *Art Studio* exist in the Advanced version, and added to that: designs can be in Mode 0, cursor coordinates on screen at all times if necessary, 25 different sizes of greyscale, windows can be dumped to printer, animation sequences, colour priorities or stencils, multicoloured pattern-fills, 16 different pens, 8 spraycans, 15 user-definable multicoloured brushes, nine text sizes in two directions with bold and italics options, 91 definable characters in font editor, user-defined windows can be copied, moved, squashed, stretched, flipped and rotated, additions to shape section, circles filled in real time.

We'll have to wait for a preview copy to pass on full details to you. In the meantime, a few other good-news points: no longer is the frustrating Lenslok system being used; any CPC machine with disk drive and 128k (ie, 64k plus the DK'tronics expansion memory in the case of 464 and 664 computers) can use the *Advanced Art Studio*; the price is £24.95, or you can upgrade your old version for £5.00 if you send it direct to Rainbird. More news from Rainbird, 01-240 8838.

More horror from CRL

Dracula, which caused much controversy as the first piece of software having an over-16 censor sticker, has another terror-laden title lurking in its tracks: *Frankenstein*. You'll be pleased to know that CRL has run out of sticky-labels.



The game, not to be confused with Ariolasoft's *Bride of Frankenstein* reviewed in this issue, is based on the novel by Mary Shelley. You play none other than Frankenstein. CRL claims "horrific animated digitised graphics... powerful descriptive text... terrifying sound effects...". Lack of a censor label is more than made up for by the £9.95 (cassette) or £14.95 (disk) pricetag.

Fishy software

Piranha plans to release *Flunky*. This is a game with large sprites like *Trap Door* and its puzzles are even weirder. The game is set in Buckingham Palace.

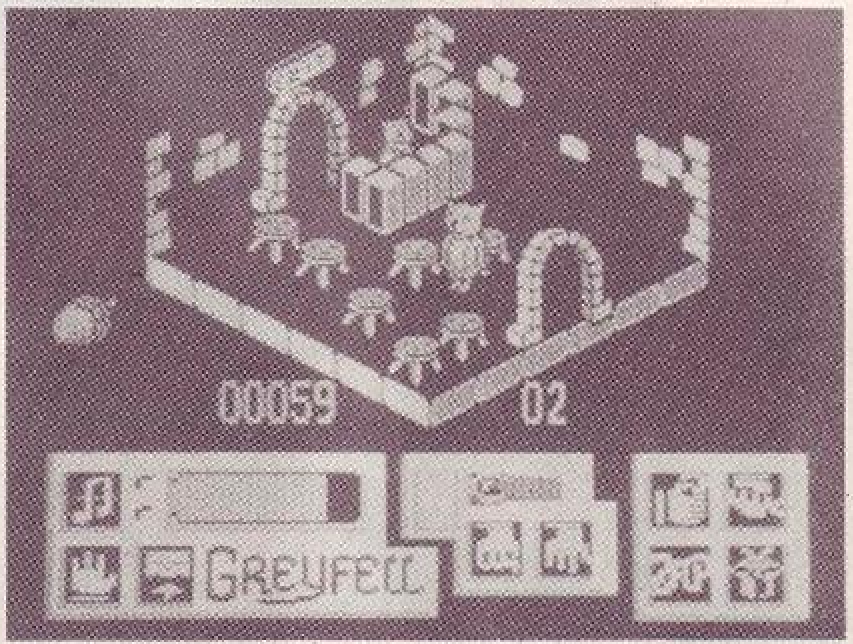
Flunky shows us what it's really like inside the royal towers: odd creatures lurk the corridors; deadlier ones roam the cellars. Even HM rears her head commanding you to find, among other things, the Royal Corgis. For £9.95 you can become an employee of the royal household and get to work.



High cat

Norman, the cat, likes his pint. He also has a friend: Hitormis the Wizard. Greyfell is the place. Mauron the Evil has Greyfell under his thumb. Hitormis informs Norman of the Orb of Life; it has the power to release Greyfell of its vile master. Norman, after having a bowl of Fosters, decides to take on the challenge.

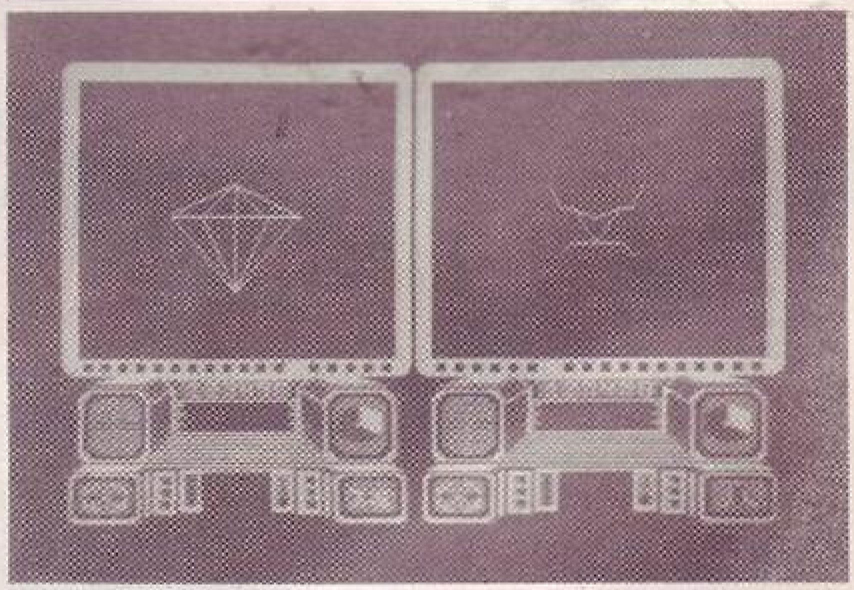
Starlight Software is responsible for the £9.99 cassette price, £14.95 disk price and creation of Norman. *Greyfell – the Legend of Norman* is a true story; only the names have been changed to protect the guilty.▼



More from Starlight

Starlight, one of Ariolasoft's many software labels, has two games "soon" for the taking. The letter D is flavour of the month, with *Dogfight 2187* and *Deathscape*.

Dogfight hurtles you into the 22nd century, where you, Rhett Dexter (sounds familiar), are humanity's last hope. With cries of "Get Dexter" (whoops) your spacecraft takes to the heavens: blast the aliens, blast their spaceships, blast the Spatial Generator. Actually you're supposed to search for the Spatial Generator, but blast it anyway.▼



Blasting plays a major role in *Deathscape* (Dexter is not involved). Varg and the Sol Federation, due to political incompatability, are not too chummy with one another. Their differences are settled with one-to-one combat in the tunnel of death. There can be only one victor. Your turn soon comes. As one of the elite Sol Fed fighters, into the tunnel you go. Of course rules change; you are attacked by an entire fleet of Vargs – ah well, good luck.

As yet no definite prices have been given. For that matter no release dates either.

Dare you touch

Gremlin dares you to try your hand at *Krakout*, its latest £9.99 arcade game – a souped-up version of the classic *Breakout*.

The game is set in two stages: smash-the-bricks followed closely by bash-the-aliens. *Krakout* "will have you engrossed before you've finished admiring its simplicity." There are "almost infinite" levels of gameplay. Missile speed and bat inertia are a couple of the many user-controllable options that *Krakout* boasts. Then there's the ogre: he eats missiles...

An X too few

Xxarian Star Corporation solar-energy grid is your destination; another X would have gotten you to moonshine; add one to that and you're on the way to a great Australian pint.

Getting to Xx is not an easy task. Energy pulses block the path ahead (an X too many may not help either). While speeding around the grid you must destroy disruptor pulses and collect energy crystals left in their wake.

For £7.95 (cassette version) or £14.95 (disk version) you can lose your head in Xxxxxs. The game: CRL's *Sun Star*.

Uninterrupted power

Powerguard has two new uninterruptible power supplies giving your computer system protection against voltage dips, surges, interference and complete power failure. The units are rated at 125 and 250 watts and have a battery standby time on mains failure of 20 minutes (enough time to save any important data and switch off in an orderly fashion). Prices start at £420. Call Freefone Powerguard for further details.

Silver cheapies

Thrust was one of 86's most successful budget games on the Firebird Silver label. Following hot on its heels: *Thrust II*. Will it be another blockbuster? We'll have to wait and see.

A similar setting to the previous game: an artificially created planet (just add sugar to taste), an orb, a battlecruiser, underground caverns, a task. But wait, there are differences: 10 lives, the planet's name (p2112), androids, a different title (*Thrust II*).

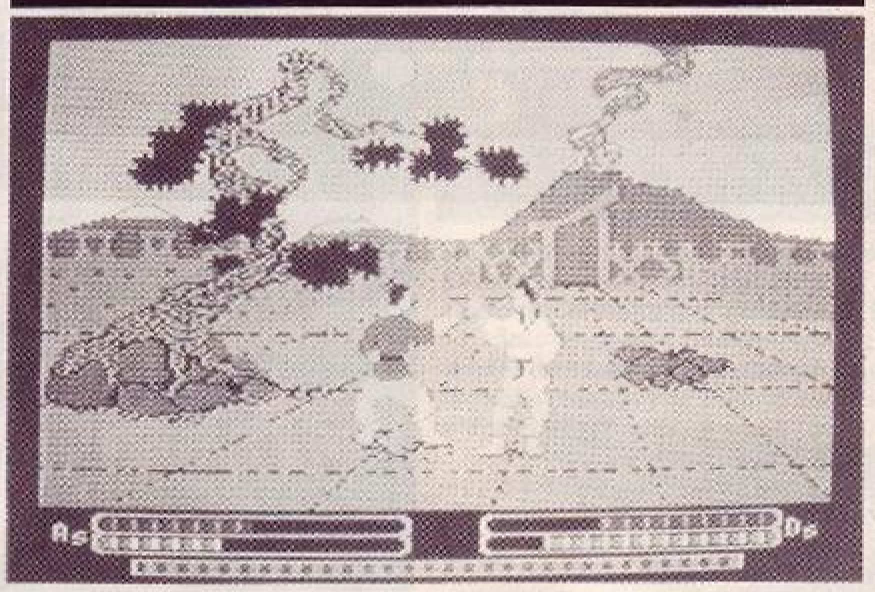
£1.99 gives you the privilege of clearing p2112 of its dust-covered atmosphere.

More uumph

The Way of the Tiger, and more recently, *Avenger* have been Gremlin's answer to the martial-art beat-em-up games that were the in-thing not too far back. Trying to keep a flagging horse alive is *Samurai Trilogy*.

Karate, kendo and the Samurai way have been incorporated into one package. You must attain the ultimate accolade of Samurai Warlord, selecting your training program from a large set of options; you fight opponents under the guidance of Master Chu Yu. If you gain this much-honoured title, your name may be inscribed on the walls of Chopemup.

For £9.99 you have the chance of going down in history as the all-chewing-and-chopping-none-have-beaten-me hero.



The Two Towers

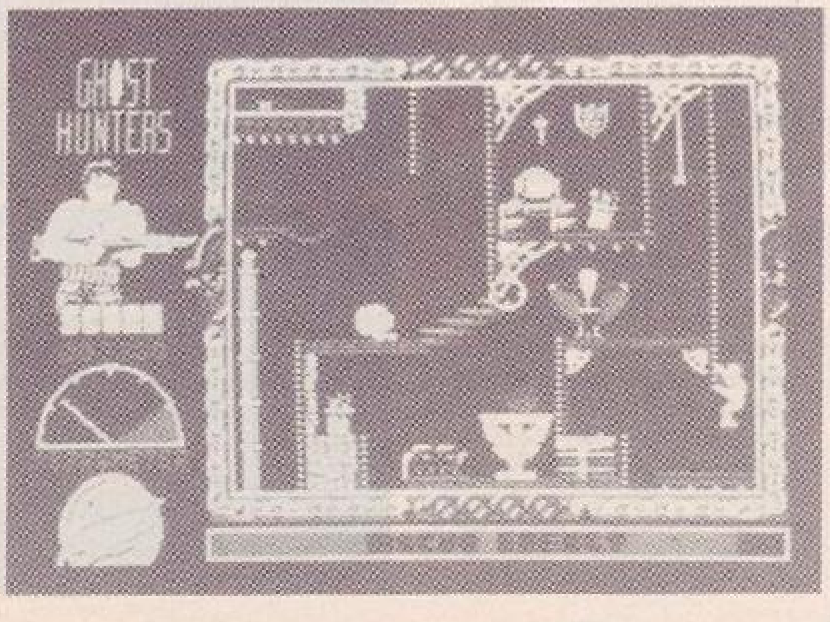
If you're a fan of JRR Tolkien's books or an addict for adventure games then Melbourne's follow-up to *Lord of the Rings*, *Shadows of Mordor*, will be right up your street. The adventure incorporates refinements to previous Melbourne House games such as *The Hobbit* and, of course, *Lord of the Rings*.

Features promised include complex problems, a close storyline to Tolkien's second volume, *The Two Towers*, extensive location descriptions, 800-word vocabulary with 128-character Inglish input.

What looks to be a blockbuster will hit the shop shelves around June. And the price: £8.95 on cassette.

More cheapies

Code Masters is bringing out *Ghost Hunters*, a platform game where diamond necklaces and silver goblets play an important role. Written by Philip and Andrew Oliver, who already have *Super Robin Hood* to their credit, it's going for the usual cheapie rate: £1.99.



WHY AMTIX CLOSED

Amtix, the Amstrad magazine aimed largely at game-players, has been folded by publishers Newsfield. Issue 18, the April issue, was the last to be published.

Although rights to the title were sold to Database Publications, *Amtix* has ceased publication as a separate magazine.

The official reason for the sale was that Newsfield wanted to concentrate on their two main computing titles *Crash* and *Zzap! 64* and their new youth title *LM*. Others in the news trade have pointed to the magazine's low circulation and advertising revenue as a more likely reason. Newsfield publishing director Graeme Kidd admitted the title was their "first non rip-roaring success".

Although modelled on *Crash* and *Zzap* it appears that the more adult nature of the Amstrad marketplace prevented *Amtix* ever expanding beyond a small, enthusiastic readership.

Here at The Old Barn the magazine will be missed. We like competition and life won't be quite the same without all those anti-AA letters *Amtix* loved to print.

Marble Madness comp winners

Here are the 50 lucky winners of a copy of the *Marble Madness Construction Set* from the competition published in *AA* 18.

Adrian Brownlow, Hucknall; Jeremy Alsop, Wolverhampton; Robert White, Wakefield; James Renshaw, Prestwich; Jon Hopgood, Maidenhead; C Dawson, Knottingley; Bradley Dean, London SW8; R Viswanathan, London E15; Donald Godsman, Falkirk; Gordon Hure, Bristol; Neil Toogood, Bridgwater; Erica Ingham, Chilwall; T Trafford, Barnoldswick; Debra Wilson, Little Hulton; Steven Bostock, Urmston; DJ Davies, Exeter; R Currie, Maghull; D Blackwell, Chedworth; Kevin Wallbank, Charnock Richard; Lee Stewart, Whitley Bay; Ian Kirby, Barking; RN Carter, Boston; David Rees, Bawtry; J, O'Neill, Warley; Elizabeth Woodhouse, Maidstone; Ian Dick, Glasgow; Jonathan Ayres, Princes Risborough; Thomas Britz, Denmark; Sunil Hirani, London W3; Mark Johnson, Milton; Michael Bennett, Redcar; SC Woodhams, Lower Willingdon; Stephen Harsor, Pulborough; Alan Dickinson, Eston; JC Ellis, Huddersfield; Darren Ryder, Leighton Buzzard; S Loggie, Sorn; S Alderson, Fenicowles; Benedict Garrer, Launceston; KM Kosmowski, Yeovil; Gary Johnston, Grange-over-sands; JM Oliver, Boston; Ian Stevenson, Walkington; Stuart Harvey, Goole; Stephen Stokes, Aylesbury; Christopher Gacow, Bolton; Mel Wilson, Stoke-on-Trent; Andrew Fields, Bradwell; Martin Tipton, Barwell; R Boissier, Villefranche.

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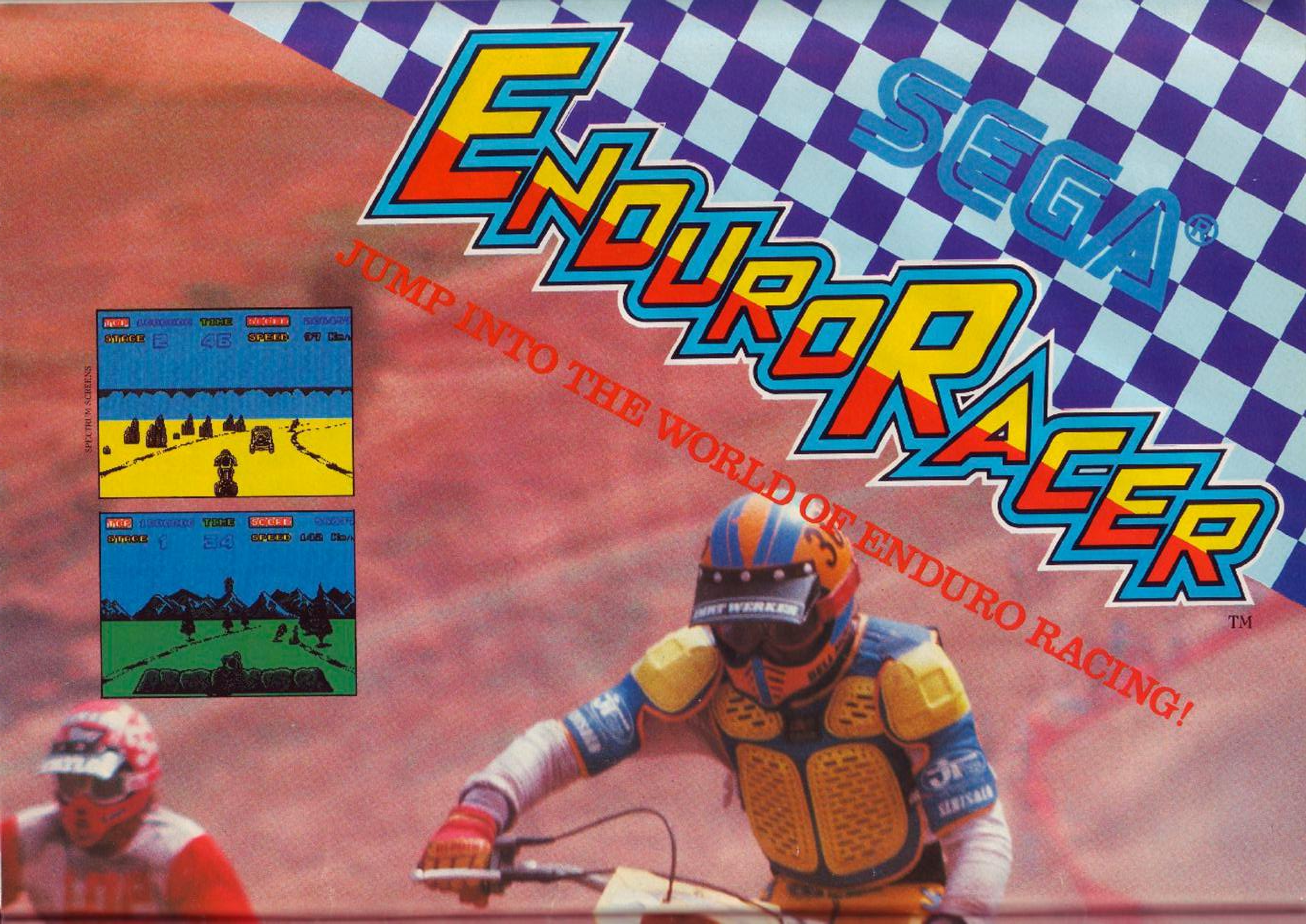
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Psychedelic strobe

Stephen Stokes of Aylesbury, Bucks, has sent in a listing similar to Alexander Clark's Sound to Light (*AA* 19).However, this program works in a different way and is faster because it is written in machine-code. The results are most satisfying if the cassette input is plugged into the headphone socket of a music system.

Run the program. Setting up the machine-code and initial screen pattern takes a few minutes. Plug the cassette lead into the music system. If nothing happens increase the volume: increasing the volume will result in faster and brighter patterns. Effects are best in a darkened room. Pressing any key will halt the program.

```
1 ' Psychedelic strobe
2 ' by Stephen Stokes
3 ' Amstrad Action   May 87
20 '
30 '** MACHINE-CODE LOADER **
40 '
50 FOR AD=32768 TO 32907 STEP 10
60 CHECKSUM=0:FOR AD2=AD TO AD+9
70 READ V$
80 N=VAL("&"+V$)
90 POKE AD2,N
100 CHECKSUM=CHECKSUM+N
110 NEXT AD2
120 COUNT=COUNT+1:READ CH$:IF VAL("&"+CH$)<>CHECKSUM
   THEN PRINT"Checksum error in line";COUNT*10+130:END
130 NEXT AD
140 DATA 3E,00,32,4E,80,3C,32,4F,80,01,27C
150 DATA D0,F5,2E,1A,ED,78,FE,DE,28,04,57A
160 DATA 3E,01,18,02,3E,00,F5,D1,3A,4E,2E5
170 DATA 80,82,32,4E,80,3E,00,03,2D,BD,32D
180 DATA 28,02,18,E2,2E,0E,ED,78,FE,DE,4A1
190 DATA 28,04,3E,01,18,02,3E,00,F5,D1,289
200 DATA 3A,4F,80,82,32,4F,80,3E,00,03,2CD
210 DATA 2D,BD,28,02,18,E2,18,02,00,00,228
220 DATA 3E,00,01,00,00,F5,C5,CD,32,BC,3B4
230 DATA C1,F1,3C,CB,67,20,02,18,F2,3A,486
240 DATA 4E,80,47,4F,3A,4F,80,CD,32,BC,428
250 DATA ED,5F,67,ED,5F,6F,CD,05,BC,CD,5C9
260 DATA 1B,BB,38,03,C3,00,80,CD,FF,BB,4DB
270 DATA 3E,01,CD,0E,BC,C9,00,00,00,00,29F
280 '
290 '** BASIC ROUTINE TO DRAW PATTERN **
300 '
310 DEG:MODE 0:FOR ik=0 TO 15:INK ik,ik:NEXT:BORDER 0
320 FOR c=1 TO 15
330 rd=c*3+(15-c)
340 FOR z=1 TO (22-c)
350 x=RND*640:y=RND*400:n=RND*36
360 FOR q=n TO 360+n STEP 36
370 PLOT x,y,c:DRAW x+COS(q)*rd,y+SIN(q)*rd,c
380 NEXT q,z,c
390 '
400 '** CALL MACHINE-CODE ROUTINE **
410 '** PRESS ANY KEY TO STOP      **
420 '
430 CALL &8000
```

Curve

Below is a neat one-liner from **Jamie Wynn** of London. The routine will ask for a number enabling it to calculate the cross-hatching required for the curve.

```
1 ' Curve
2 ' by Jamie Wynn
3 ' Amstrad Action   May 87
10 INK 1,26:MODE 1:INPUT a:MOVE 1,1:DRAW 400,1:
  DRAW 400,400:FOR x=1 TO 400 STEP a:DRAW 400,x:
  MOVE x,1:NEXT:WHILE INKEY$="":WEND:GOTO 10
```

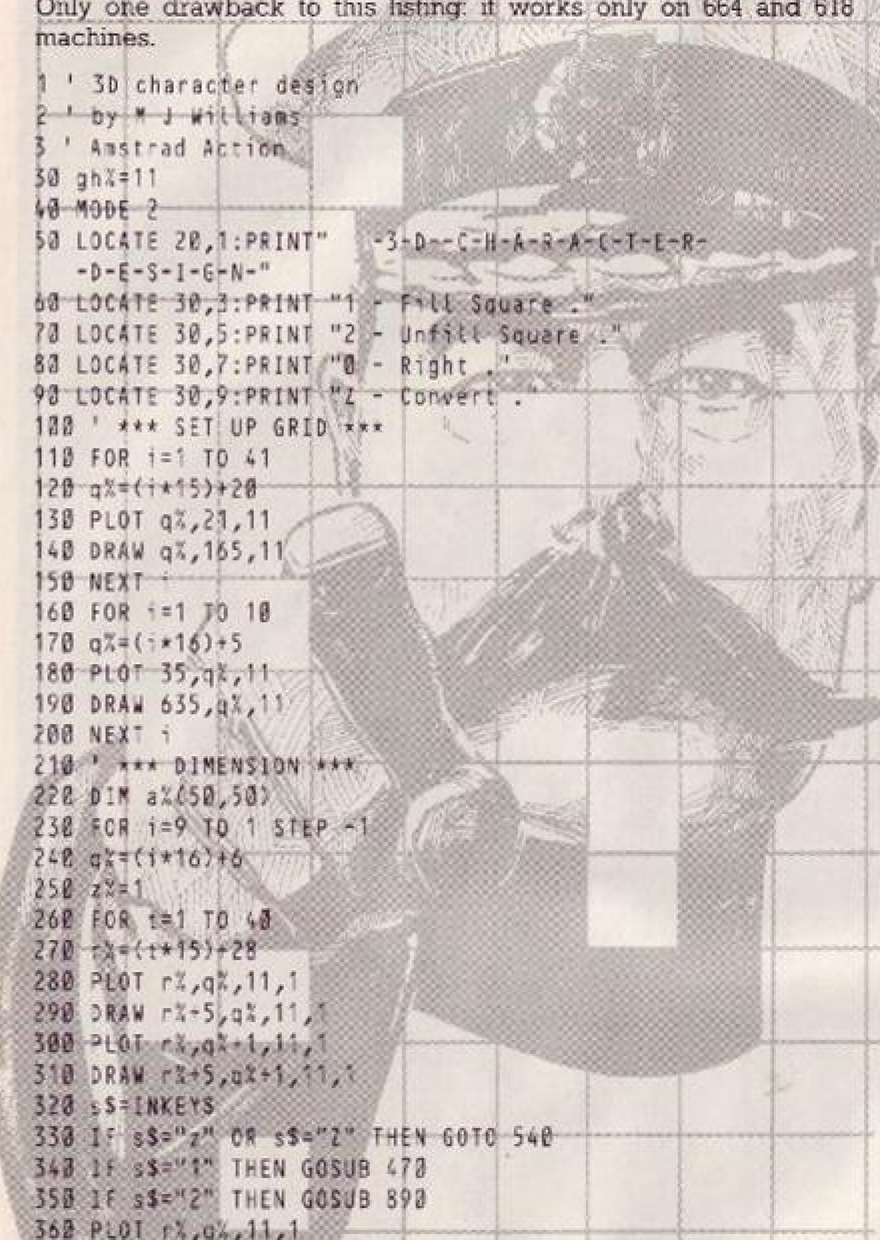
Disk inlay

A very useful listing by **Mark Gannon** of Leabrooks, Derbyshire: it produces very accurate blank inlay cards suitable for three-inch disks. The program will work on any Epson-compatible printer. Before running, ensure that the buffer mode is set to download. On the DMP 2000 this is achieved by setting dipswitch DS2-4. Mark suggests using light card and friction feed.

```
1 ' Disk inlay
2 ' by Mark Gannon
3 ' Amstrad Action   May 87
30 ctrlon$=CHR$(27)+"I"+CHR$(1):ctrloff$=CHR$(27)+
  "I"+CHR$(0)
40 lfcr$=CHR$(27)+"J"+CHR$(20)+CHR$(13)
50 prtline$=ctrlon$+CHR$(5)+" "+CHR$(5)+SPACE$(30)+
  CHR$(6)+ctrloff$+lfcr$
60 PRINT#8,CHR$(27);"@";:' Printer reset.
70 PRINT#8,CHR$(27);"U";CHR$(1);:' Set to unidirectional.
80 PRINT#8,CHR$(27);"&";CHR$(0);CHR$(3);CHR$(6);
90 REM Sends download character definitions.
100 FOR outer=1 TO 4
110 FOR inner=1 TO 12
120 READ c
130 PRINT#8,CHR$(c);
140 NEXT inner
150 NEXT outer
160 ' Selects download characters & prints inlay.
170 PRINT#8,CHR$(27);"%";CHR$(1);CHR$(0);
180 PRINT#8,ctrlon$;STRING$(34,3);ctrloff$;lfcr$;
190 FOR loop=1 TO 13
200 PRINT#8,prtline$;
210 PRINT#8,prtline$;
220 PRINT#8,ctrlon$;CHR$(5);" ";CHR$(5);"  ";
   STRING$(26,3);"  ";CHR$(6);ctrloff$;lfcr$;
230 NEXT loop
240 PRINT#8,prtline$;
250 PRINT#8,prtline$;
260 PRINT#8,prtline$;
270 PRINT#8,ctrlon$;STRING$(34,4);ctrloff$;lfcr$;
280 END
290 ' Download data.
300 DATA 11,1,0,1,0,1,0,1,0,1,0,1
310 DATA 11,64,0,64,0,64,0,64,0,64,0,64
320 DATA 11,255,0,0,0,0,0,0,0,0,0,0
330 DATA 11,0,0,0,0,0,0,0,0,0,0,255
```

3D Picture designer

Here is a marvellous utility to design three-dimensional pictures. Sent in by **MJ Williams** of Kingsheath, Birmingham, it draws up a two-dimensional grid where you can fill in or clear squares. You can then display the finished design in three dimensions and save it if you wish. All instructions are displayed when the program runs. Only one drawback to this listing: it works only on 664 and 618 machines.



```
1 ' 3D character design
2 ' by M J Williams
3 ' Amstrad Action
30 gh%=11
40 MODE 2
50 LOCATE 20,1:PRINT"    -3-D--C-H-A-R-A-C-T-E-R-
   -D-E-S-I-G-N-"
60 LOCATE 30,3:PRINT "1 - Fill Square ."
70 LOCATE 30,5:PRINT "2 - Unfill Square ."
80 LOCATE 30,7:PRINT "0 - Right ."
90 LOCATE 30,9:PRINT "Z - Convert ."
100 ' *** SET UP GRID ***
110 FOR i=1 TO 41
120 q%=(i*15)+20
130 PLOT q%,21,11
140 DRAW q%,165,11
150 NEXT
160 FOR i=1 TO 10
170 q%=(i*16)+5
180 PLOT 35,q%,11
190 DRAW 635,q%,11
200 NEXT i
210 ' *** DIMENSION ***
220 DIM a%(50,50)
230 FOR i=9 TO 1 STEP -1
240 q%=(i*16)+6
250 z%=1
260 FOR t=1 TO 40
270 r%=(t*15)+28
280 PLOT r%,q%,11,1
290 DRAW r%+5,q%,11,1
300 PLOT r%,q%+1,11,1
310 DRAW r%+5,q%+1,11,1
320 s$=INKEY$
330 IF s$="z" OR s$="Z" THEN GOTO 540
340 IF s$="1" THEN GOSUB 470
350 IF s$="2" THEN GOSUB 890
360 PLOT r%,q%,11,1
370 DRAW r%+5,q%,11,1
380 PLOT r%,q%+1,11,1
390 DRAW r%+5,q%+1,11,1
400 IF s$<>"0" THEN 320
410 PLOT r%,q%,11,1
420 DRAW r%+5,q%,11,1
430 PLOT r%,q%+1,11,1
440 DRAW r%+5,q%+1,11,1
450 NEXT t,i
460 GOTO 540
470 ' *** Fill in ***
480  a%(t,i)=1
490 FOR s=q%+1 TO q%+13
500 PLOT r%-7,s,11,0
510 DRAW r%+6,s,11,0
520 NEXT s
530 RETURN
540 CLG
550 ' *** 3D CODING ***
560 FOR b=9 TO 1 STEP -1
570 FOR k=1 TO 2
580 c%=85-(b*10)+(k*5)
590 d%=(b*7)+45-(k*3.5)
600 FOR e=1 TO 40
610 PLOT c%,d%,11,0
620 IF a%(e,b)=0 THEN 700
630 IF a%(e-1,b)=1 THEN 660
640 d%=d%+15
650 DRAW c%,d%,gh%
660 c%=c%+13
670 d%=d%+4
680 DRAW c%,d%,gh%+2
690 NEXT e:NEXT k:NEXT b:GOTO 760
700 IF a%(e-1,b)=0 THEN 730
710 d%=d%-15
720 DRAW c%,d%,11
730 d%=d%-4:c%=c%+13
740 DRAW c%,d%,0
750 GOTO 690
760 LOCATE 1,1
770 INPUT "Do you want to save picture ";a$
780 IF UPPER$(a$)="NO" OR UPPER$(a$)="N" THEN RUN
790 LOCATE 1,1
800 PRINT "                                        "
810 LOCATE 1,1:INPUT "Filename";a$
820 i$=INKEY$:LOCATE 1,1
830 PRINT "Press any key to save picture ."
840 IF i$="" THEN GOTO 840
850 LOCATE 1,1:PRINT SPACE$(79)
860 SAVE a$,b,&C000,&4000
870 RUN
880 ' *** Unfill ***
890 LET a%(t,i)=0
900 FOR s=q%+1 TO q%+13
910 PLOT r%-7,s,0,0
920 DRAW r%+6,s,0
930 NEXT s
940 RETURN
```

Scrolling message

A short scrolling message routine has been supplied by **Mark Bonsher** of Loughborough, Leicestershire. Alter the text in line 20 to suit your needs – run – and watch your message scuttle across the screen.

```
1 ' Scrolling message
2 ' by Mark Bonsher
3 ' Amstrad Action    May 87
10 MODE 1
20 a$="        HI, ALL YOU KEYBOARD-BASHERS,
  THIS IS A SCROLLING MESSAGE.  THE
  TEXT CAN BE UP TO 255 CHARACTERS LONG --
  MEANING YOU CAN FIT QUITE A BIT IN.  YOU'VE
  HAD DOUBLE HEIGHT, DOUBLE WIDTH AND VARIABLE
  HEIGHT; NOW YOU'VE GOT SCROLLING TEXT."
30 A$=A$+MID$(A$,1,1):A$=RIGHT$(A$,LEN(A$)-1):
  LOCATE 10,10:PRINT LEFT$(A$,20);:GOTO 30
```

Guidelines for Type-in authors

Anything from £10 to £100 could be yours if your type-in is selected to appear in these pages. Remember it must be your own original work. The address: Type-ins, *Amstrad Action*, Somerton, Somerset, TA11 7PY.

If you plan to send a listing to be considered for publication, here are a few pointers:

▶ Use lower-case rather than capitals for variable names. Keep them short but meaningful.

▶ Do not use letters that look like numbers as variable names: lower-case L (l), capital I or either O. Even B can look like 8 on some printers.

▶ REM statements make the program easier to understand – especially when you rediscover it on tape six months later. Put program name, source and date at the top. REM every subroutine to outline its purpose.

▶ Structure your programs – divide them into sensible procedures.

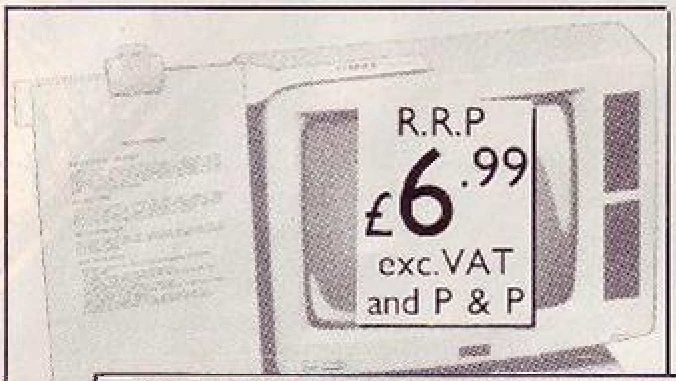
▶ Avoid long multi-statement lines. Short lines make debugging easier.

▶ Try to keep lines short enough to fit our columns without confusing wrap-arounds.

▶ And *please* make sure your name and address (in human-readable form) is on every single piece, especially the label of the cassette or disk. Keep a copy.

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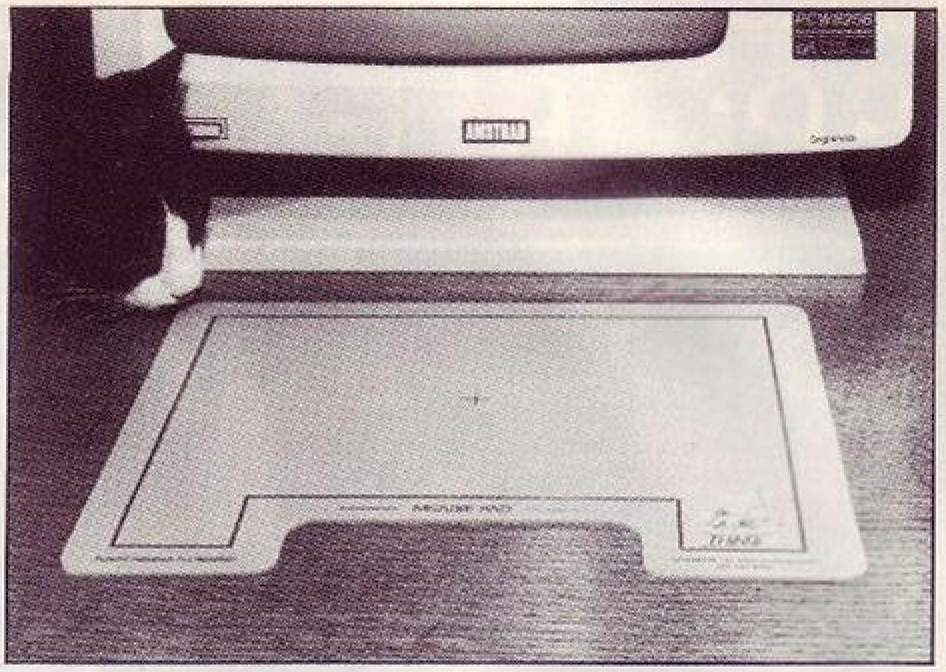


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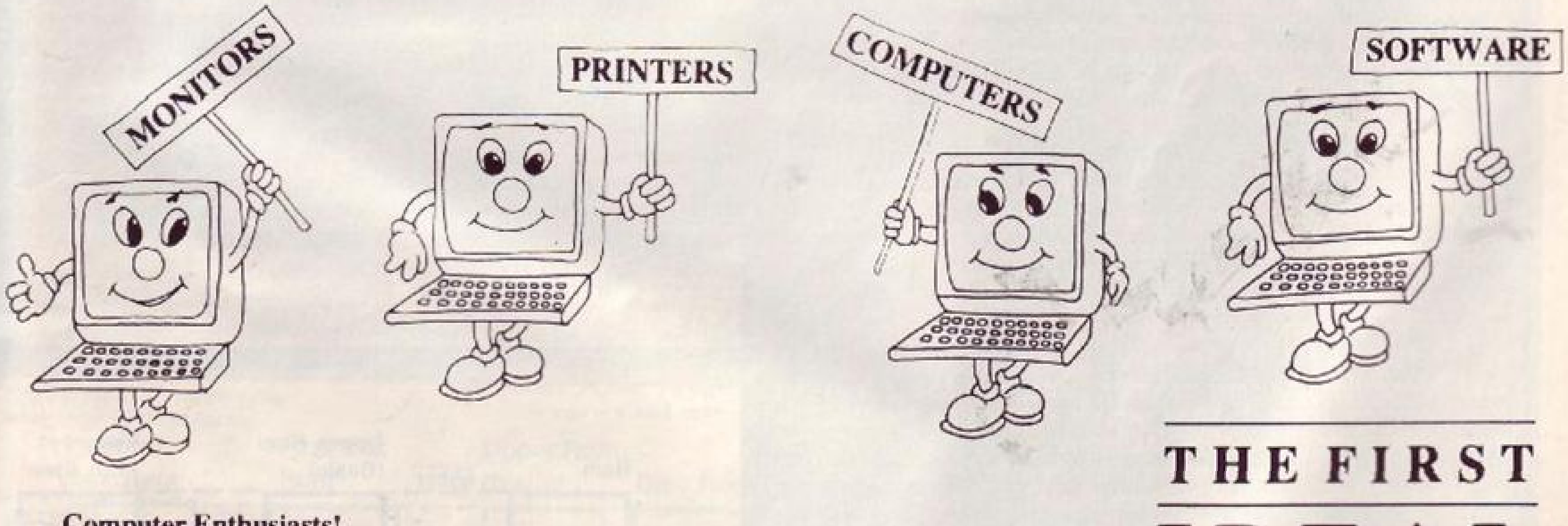
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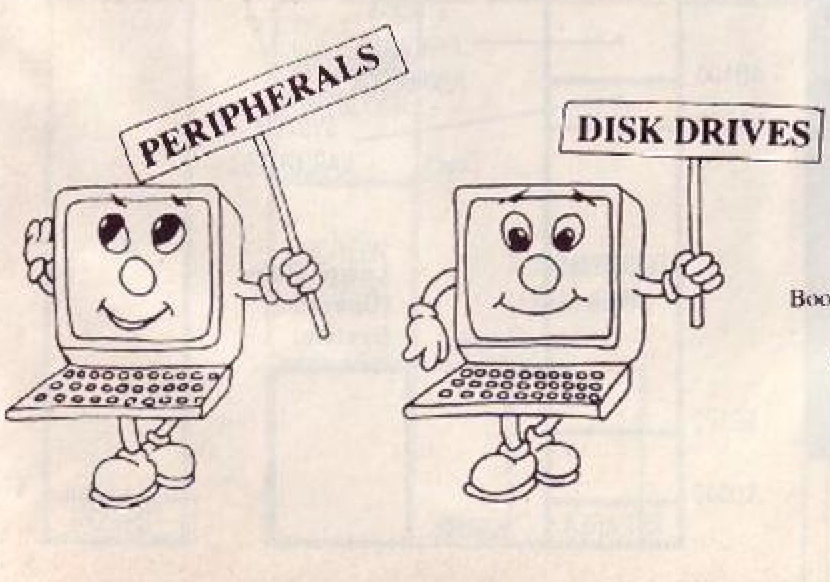


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PROBLEM ATTIC



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Books or articles on CPM

Please can you help? I am a new owner of a CPC 6128. Can you recommend any publications or back numbers of *AA* that would help – especially with CPM.

Is it possible, under CPM, to send whatever is typed at the keyboard directly to the printer?

Mrs YR Kelly
Enfield, Midx

Amstrad Action ran an eight-part series on CPM called Booting CPM in issues 10 to 17. The articles dealt with CPM at a beginner's level.

An ideal book to teach you the ins and outs of CPM, Amsdos and general use of the disk system is The Amstrad Disc Companion *by Simon Williams, published by Sigma Press, £7.95 paperback, ISBN 1 85058 034 0. (Simon helps edit our sister magazines, 8000 Plus and PC Plus.)*

For a typewriter effect while using CPM, boot CPM with your system disk installed and then type:

```
PIP LST:=CON:
```

Whatever you type will appear on the screen. As soon as you type Return (or Enter) the text will go directly to the printer. You will have to press Control-J for a linefeed, though. Control-Z will return you to the `A>` *prompt.*



Memory loss

Please can you explain the memory? I am completely lost by it. Programmers use Calls and Pokes and Peeks and numbers and things! What are they? How do they work? I am learning rapidly, but have come to a sticky end with memory.

PA Lewis
Ely, Cardiff

Figure 1 gives you an idea how your Amstrad's memory is configured. Random-access memory (ram) can be written to or read: everything that you type in at the keyboard is recorded into memory somewhere – a mishmash of keypresses such as `A4ghjf R&%R&` *will be stored temporarily, intelligent entries (for example,* `10 PRINT 3.24*8`*) will be stored until you either switch off the machine or issue the* `NEW` *command.*

Basic programs start at memory location 368 (&170). Try entering the line:

```
10 PRINT"I have been stored in memory"
```

As the line says, it has been stored. Not, however, as you typed it in. But rather as a string of numbers. You don't believe me? Enter in direct mode (that is, without using a line number) the following:

```
FOR t=368 to 393:PRINT PEEK(t);" ";:NEXT t
```

You will get a row of numbers on screen like this:

```
26 0 10 0 191 34 73 32 104 97 118 101 32 98 101 101 110
32 115 116 111 114 101 100 34 0
```

*That is your one-line Basic program; and that is how it is stored inside your computer. The first number tells you the length of the program line – in this case 26 characters (go on, count them). The next number (or byte) also refers to the length of the program line. At first it won't be obvious how two decimal numbers (in different memory locations) can be thought of a single number – this will be explained later. For now just believe me when I say that the length of your Basic program is calculated by: (0*256)+26 which equals 26. If, for example, the number preceding 26 (in the row of numbers) was 47 then the length of your Basic program would be (47*256) + 26 which equals 12058.*

The third and fourth numbers in the row refer to the line number of the program line. Again two bytes are used to represent a single number: the value 10 is the low byte and value 0 the high byte. Enter in direct mode `POKE 370, 20`*. Now list the program; you should find that the line number is 20 rather than 10. If you then* `POKE 371, 1` *and list the program again the line number will now show 276 – not obvious? It is calculated by (1*256) + 20.*

You have discovered the length of the line and altered its line-number. The next item that is stored is the command – in our example it was PRINT. The value 191 represents the command PRINT. Try altering that by `POKE 372, 190`*. List the program; the command PRINT will have changed to POKE. Entering different numbers will cause other command words to appear.*

The remaining numbers (bar the last) tell the program what is to be printed. Each number refers to an Ascii character. For example the number 65 represents the Ascii character A. At the back of your Amstrad User manual there is a list of numbers and the characters they represent.

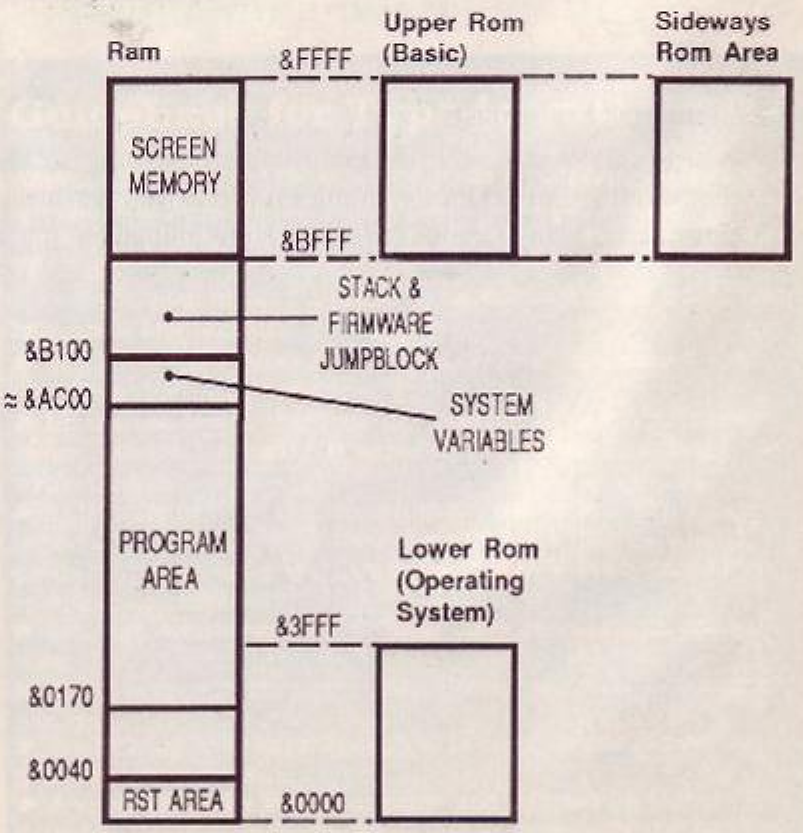
A value zero (the last number in the row) tells the computer that the line has ended. In other words, it is a terminating byte.

You have seen how the computer stores Basic programs in memory as a series of numbers. You have also used PEEK and POKE. You may not have realised what PEEK and POKE were doing, so read on. The command PEEK allows you to look at the contents on any memory location. POKE does the opposite; it allows you to alter the contents of any memory location. Enter the command `PRINT PEEK(1000)`*. This will ask the computer to print the value held in memory location 1000. The value returned will be 0. Now enter* `POKE 1000, 25` *followed by the command* `PRINT PEEK(1000)`*. A value of 25 will be returned (the number we used with the POKE command). As you see, PEEK and POKE aren't quite as daunting as they first seemed.*

The CALL command is used to run a machine-code routine from Basic. Type in and run the short Basic program below, it pokes

```
10 FOR t=30000 TO 30005
20 READ a:POKE t,a:NEXT t
30 DATA 62,7,205,90,187,201
```

Figure 1: the CPC memory map when Basic is in control





PROBLEM ATTIC

– nothing is too simple or complex for RpM

Basic routines

Do you have a nice simple Basic routine to disable the disk error message? And a similar Basic routine to alter the number of retries?

D Heeps
Lindal, Ulverston

The April issue (AA 19) had a single poke to disable the disk error message:
`POKE &BE78,&FF` *for off;* `POKE &BE78,&00` *for on. You will be pleased to know that a similar solution exists for number of retries:* `POKE &BE66,n` *– where n is the number of retries.*

Locoscript won't go

I recently bought the *Locoscript* word-processor to run on my 6128. To my surprise I cannot run this disk or even catalogue it. Is something wrong?

A Jadhav
London

Something is very wrong: you've got the wrong machine – or the wrong word-processor. Locoscript is intended only for the PCW machines. True, it runs under CPM Plus but there the similarity ends. The reason you're having problems cataloguing is that the CPC machine cannot read the disk's format – the PCW, with its enhanced disk operating system, has no such trouble.

the machine-code into memory. After running the program enter the command `CALL 30000`*. Okay, nothing spectacular happened, but the program served its purpose – it demonstrated the use of CALL.*

Firmware routines under CPM Plus

I have a 464 with DD1 and 64k expansion ram. When running CPM 2.2 I can utilise most firmware routines by using the ENTER_FIRMWARE call at &BE9B.

Having borrowed CPM Plus (or 3.1) from a friend I tried using it on my expanded 464. It works, however, the call &BE9B does not work. Why is this? Is it a problem with the CPM Plus environment or should I be calling a different routine? I pray it isn't connected with CPM's USERF – having read a chapter concerning USERF about 50 times I still can't get to grips with it.

Tim Johnson
Hornchurch, Essex

CPM Plus will considerably alter your Amstrad's memory map. In fact, virtually all action takes place in the second bank of memory (look at Figure 2).

When using CPM 2.2 it is quite a simple matter to access the Amstrad's firmware – either by using the call at &BE9B or by preserving the BC' register and carry' then jumping directly to the firmware routine. The latter is not recommended, but works – note also that your program will not be portable to other CPM-using machines.

As Figure 2 shows, none of the Amstrad firmware routines are present in the memory bank containing CPM Plus. To access them, banks must be switched, registers saved and a lot of headaches endured. If you know what's going on then it is possible to do this manually – I suggest you stay sane and manipulate USERF. Userf is by no means friendly; what it allows you to do, though, is jump to the required Amstrad firmware routine without having to worry about bank and register states.

After reading through the paragraph on Userf in the book The Amstrad CPM Plus *by Andrew Clarke (published looseleaf by MML Systems Ltd, 11 Sun St, London EC2), I was thoroughly confused. A phone call to the author proved that he too was confused – that particular section of the book was provided by Locomotive Software. A helpful Richard Clayton at Locomotive provided the following solution:*

Fetch the word at location &1 (this contains the jump address for a warm boot), add 87 decimal to it. You have now got the address for the Userf jump entry. Place this value in a handy place in memory, putting &CD in front of it. After the Userf entry you should place the firmware routine you wish to access followed by a return (&C9). All that remains is for you to set up the registers as they would be used by the firmware routine and call the Userf entry.

Finding the Userf jump entry in such a manner may seem rather odd; the fact is that if Locomotive decides to alter the BIOS at any time, using this method will ensure compatability with future versions. If you still feel rather lost this assembly listing should clarify matters:

```
ORG &100

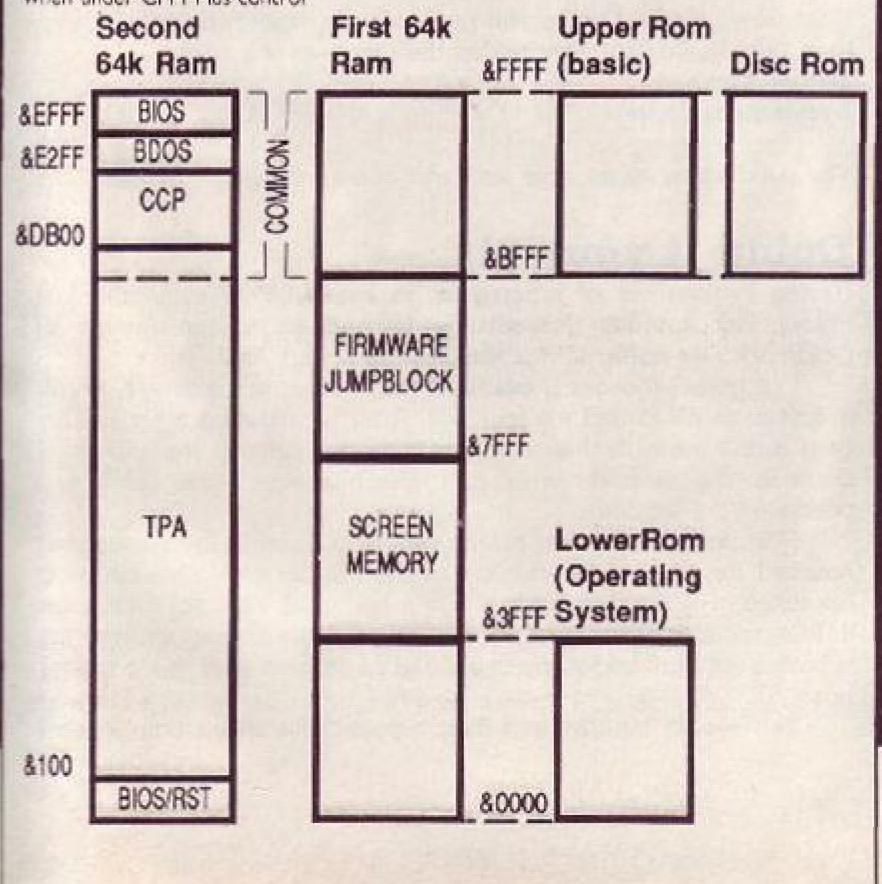
LD HL,(1)
LD DE,87
ADD HL,DE
LD (user),HL

LD HL,&BB5A
LD (routine),HL
LD A,7
CALL userf
RET

userf
DEFB &CD
user
DEFW 0
routine
DEFW 0
RET
```

This example does nothing spectacular – causes the computer to beep at you using the TXT_OUTPUT routine (&BB5A) – but it serves to demonstrate Userf. Note that you won't be able to use this program on a CPM 2.2 system or any CPM system other than a CPC machine. You will also find that many firmware routines (for example KL_ROM_WALK; &BCCB) will not work causing the machine to lock up.

Figure 2: the 6128's memory map when under CPM Plus control



HOT TIPS

Minus mayhem, DMP tips, a function to prevent you resetting your CPC, and a madman's story: how he did it. The experts explain a few of Arnold's tricks.

Printer option for Amfile

Thank you very much for the Christmas cassette. *Druid* is great, even though it's only level two. I found the utilities of immense help, *Amfile* in particular (thanks, Antoine Robinson). One function *Amfile* badly lacks is a print option. Here are a few lines to incorporate into *Amfile*.

First rewrite these lines:

```
110 RESTORE:FOR g=1 to 9:READ a
130 DATA Field entry,Record entry,
    List or order present file,
    Edit or delete a record,Save
    file/fields only,Load
    file/fields only,Erase file,
    Exit program,Print fields
150 a="":WHILE a<"1" or a>"9":
    a=INKEY$:wend
160 ON VAL(a) GOTO 180,340,560,1370,
    1730,2220,2650,2710,751
```

Now add these lines:

```
751 PRINT#8,titleS
752 PRINT#2,"PRESS SPACEBAR TO STOP,
    ESC TO PAUSE":WINDOW 1,40,7,23
753 FOR g=1 to rec:PRINT#8:PRINT#8,
    "RECORD"g
754 FOR h=1 TO field
755 PEN 2:PRINT#8,field$(h)":";:PEN 3:
    PRINT#8,LEFT$(rec$(g,h),39-LEN
    (field$(h)));MID$(rec$(g,h),40-LEN
    (field$(h)),40)
756 IF INKEY$=" " GOTO 580
757 PEN 1:NEXT:NEXT
758 GOTO 2780
```

David Marek
Edinburgh

Faster Ramdisk

I find loading the *Ramdisk* program on the *AA* Christmas cover cassette rather slow. Here are some tips for speeding it up. Most of the program is held in data statements – this is what slows it down. A much better idea is to have the whole program as a binary file.

Ramdisk normally takes up 8k of space and therefore does not represent much of an improvement for tape users. With the speed of disk you hardly have to wait, though. Follow these step-by-step instructions:

1 Type `|TAPE` (disk users)
2 Rewind cover cassette fully on side 2
3 Type `LOAD""` (Enter)
4 When tape stops change line 160 to `160 SYMBOL AFTER 240`
5 Type `RUN`
6 When error `RESUME missing in line 260` appears type `|DISC` (disk users) then `SAVE "RAM", B, 34699, 8050, 38924`
7 Reset computer
8 Enter the loader program:

```
10 MEMORY 34699
20 LOAD"RAM",34699
30 CALL 38924
```

9 Save this as `RAMDISK`

Tape users should complete steps 8 and 9 first.

Nigel Webber
Braunton, Devon

Not more minus signs!

Since my last letter (*AA* 19) concerning Gavin Manning's `PRINT 365-(...-5)` query I have come up with more minus mayhem. Replacing the dots with 214 minus signs, type:

```
MODE 0, ?99999-(...-9)
```

Press Return (or Enter), Escape and then Z. The screen colour changes, the cassette starts up and the screen offsets to the right. Yes, I know it's all useless. But as you have a prize for best tip, why not one for the worst? You could always give away the month's worst Action Test program.

Paul Page
Solihull, West Midlands

DMP tip

In *AA* 18 Nanette Ferrie was having trouble printing in NLQ (using a DMP 2000) from within word-processors. A simple way to overcome this problem is to press down the LF (linefeed) and on-line buttons when switching on the printer. This sets up the printer for NLQ (near letter quality).

The information is actually in the printer manual: chapter 3, page 4. It does work when using *Mini Office II* – I've checked it.

David Marek
Edinburgh

Common knowledge?

The piece of info I am about to reveal may be common knowledge, but I couldn't bear the thought of any Amstrad owner not knowing: there is a short cut to running software from disk. Type the name of the program you want to run (which in some cases will be "disc"). Hold down Control while you press up-arrow and the small Enter, then release Control. Hey presto the program is loading.

Daniel Bambach
Lymington, Hants

The production editor now uses this one all the time. Thanks, Dan.

Doing it yourself

Having broken out of hibernation to read *AA* 19 sometime last Friday, my neurons immediately latched on to the review of Goldmark's 8k buffer kit for the DMP 2000 and 3000.

"Ye gods!" thought I, grabbed the nearest screwdriver, drank it, and went off to find my tool box. After invalidating my warranty (you didn't mention that in the review) by ripping the top off, I scanned the circuits, wire and miscellaneous other bits and pondered the situation.

I clocked the number on the ram chip fitted in the socket and reached for my dogeared copy of the Maplin catalogue (in most branches of WH Smith for one and a half quid – get it!) then, after a few minutes' headscratching, and a further few getting the splinters out from under my finger nails, I ambled over to my spares box.

You see, in my dim and distant past there was a time when I

started building a ZX-81 clone (don't ask) and there, sitting in a smug IC socket, was the ideal thing: a 6264 static ram chip (wow, all those numbers, must be technical).

So, knowing which end of a soldering iron to hold (not the hot end, beginners please note) I did the expander job without the aid of a safety net, nubile assistant or instructions (pause to polish fingernails).

The procedure, for those who feel confident, is to take the printer cover off, extract the 6116 ram from the socket (it's the one where the socket is bigger than the chip that's in it), find the box with three solder-filled holes marked J3 (to the left of the ram chip), lift up the circuit board by undoing the two screws that hold the computer-lead socket to the board and cut the track that connects the leftmost solder-filled hole in J3 to the centre hole.

All you then have to do is join the centre hole in J3 to the rightmost hole with a bit of wire and put in the new ram chip (this is a 6264 CMOS static ram – costs £3.70 from Maplin). I suspect, not having seen one naked, than the version-3 unit will have a link fitted which would mean just swapping the bit of plastic over to bridge the other contact; as for issue 1, I just haven't a clue (I own a version 2).

Put the printer back together, plug it back into the mains (you did take the plug out, didn't you?) connect up your Straddy and you will (should) have a 6.5k printer buffer. If you haven't got a printer buffer, or even a working printer, you have probably put the new chip in the wrong way round. If is is the right way round, I'd just like to point out that *you* did the work on your printer and if I said go and jump off a cliff you wouldn't do it and...

If you understand that lot, try it at peril (I did and it worked fine). If you're not sure then I seem to remember reading a brilliant review of an upgrade kit in a terrific magazine dedicated to the Amstrad CPC machines. Either way, the expanded printer is worth its weight (or rather no wait) in gold. Must go now as the nice man in a white coat said I could be connected to the mains again: I like that, all the lights go out.

Mr Ju
Blandford, Dorset

And a prize goes to you, Mr Ju.

HACKERS ONLY

The section that brings the CPC's darkest secrets to light. If you don't understand what's written here, bad luck. You'll get no explanation, for this is where the hackers hang out.

PCWs conquered

I wrote this short routine to enable my 6128 (running CPM Plus) to read and write to a PCW system format disk. If you own a dual-drive system, it's best to patch only one of the mapped drives and use the other to access the normal CPC system or data disks. After this routine is executed, the drive will only access a PCW disk. To return to normal the last byte of the DPB (disk parameter block) has to be poked with zero. This normally means address &FF7E for drive A and &FF99 for drive B.

The source files are presented in Z80 mnemonics.

```
 ORG 100h

LD C,31         ;BDOS function 31
CALL 5          ;Retn addr of DPB in
LD B,0          ; HL current of drive
LD C,5
ADD HL,BC
LD (HL),174     ;No of blocks -1
LD A,1          ; was 170
LD C,8
ADD HL,BC
LD (HL),A       ;No of reserved
LD C,7          ; tracks (was 2)
ADD HL,BC
LD (HL),A       ;First sector no
LD C,6          ; was 41h
ADD HL,BC
LD (HL),A       ;con't autoselect
JP 0            ;Warm boot
```

One final note: the last part of the last month's listing, the "header information," is incorrect. The second and third bytes are the wrong way round. They should be:

Byte 0: Track Number	0
Byte 1: Head Number	0
Byte 2: Sector Number	&71, &76...
Byte 3: $\log_2(128)$-7	2

DV Grief
Plymouth, Devon

Once again I must apologise for my mistake. -RpM

Playing with sector sizes

Last month there was a routine that altered the XPB allowing you to create a new format. A slight mistake meant that it won't have worked; Mr Grief has kindly explained why. I do solemnly swear there are no errors in this article. (What have I said?)

It is possible to format tracks containing a single sector of 4096 bytes (4k) or tracks with 16 sectors each holding 256 bytes (0.25k). It's not that complicated either:

Byte 20 of the XPB holds a number calculated from the formula $\log_2$ (*sector size*) -7. Under normal circumstances the value found here is 2. Working backwards we find that *sector size* equals 2^9, which gives 512 bytes. The number of 512-byte sectors per track in the standard Amstrad system is 8 or 9 depending on the format. To make explanation as simple as possible assume that a track holds a maximum of 4096 bytes, implying that a "$\log_2$ (*sector size*) -7" number of 2 will give you eight sectors, each having 512 bytes (8*512 = 4096), which is the standard Amstrad setup. (True CPM and data formats have 9 sectors per track – more of that another month.)

Assign byte 20 of the XPB a value 5 and then rearrange the expression:

$$\log_2(\textit{sector size}) - 7 = 5$$
$$\log_2(\textit{sector size}) = 12$$
$$\textit{sector size} = 2^{12} = 4096$$

A sector size of 4096 happens to be the maximum size of a track; therefore, altering byte 20 to 5 will give a format containing one sector per track (each sector being 4k in size). Right, let's put this theory into practice:

```
org &8000

        call routine_find
        call clear_XPB
        call patch_XPB
        call format_the_track
        ret

routine_find

        ld hl, select_format
        call &bcd4
        ld (select_format1), hl
        ld hl, format_track
        call &bcd4
        ld (format_track1), hl
        ret

clear_XPB

        ld a, &41
        ld e, 0
        rst 3, select_format1
        ret

patch_XPB

        ld hl, (&BE42)
        ld de, 16
        add hl, de
        ld a, 1         ;number of sectors
        ld (hl), a      ;per track
        ld de, 4
        add hl, de
        ld a, 5         ;=log(sector size)-7
        ld (hl), a
        add hl, de
        ld a, &ff       ;do not autoselect
        ld (hl), a
        ret

format_the_track

        ld hl, header_information
        ld e, 0
        ld d, 0
        ld c, &41
        rst 3, format_track1
        ret

select_format

        defb &83

select_format1

        defw 0
        defb 7

format_track

        defb &86

format_track1

        defw 0
        defb 7

header_information

        defb 0, 0, &41, 5
```

CUSTOM MICRO

A galaxy of gadgets, gimmicks and gizmos to glorify your CPC

Don't give me static

Most semiconductors that make up a computer's circuitry work on less than 5 volts; 10 volts would be enough to destroy one. Walking across a room could build up an amazing 20,000 volts of static electricity if you're wearing the wrong shoes on the wrong carpet – that could blow several chips.

Data Aids Plus supplies many products which eliminate or reduce static discharge: anti-static mats are all the rage, coming in various sizes to accommodate printer, keyboard, monitor or all three. Prices for these earthed mats start at £25. You could go overboard, damaging your bank balance in the process, and purchase an anti-static floormat – £139 for starters.

For less cash, beat back static with a burst of Anti-Static Spray. For £3.90 you can shoot a thin layer of film, creating a temporary "static-free zone" around your precious computer equipment.

Get away from it all

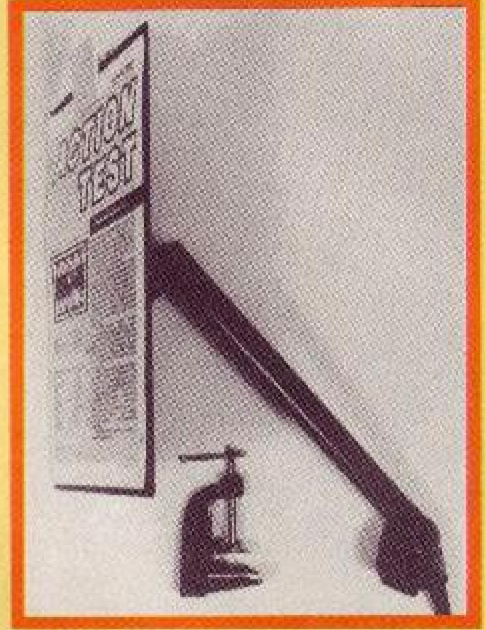
Your nose is up against your monitor. You're cross-eyed. You need either glasses or an extension cable.

For £8.50, RSD Connections has the appropriate extension cables, suitable for any Amstrad model, giving you just over a metre of breathing room (or the freedom to site the screen on a shelf beyond the range of the original kinky cables). As for an optician: there should be one near you. If not, try the Yellow Pages.

Want to move your printer further away? RSD Connections again produces the goods. Along with the standard one-metre cable (£8.95), RSD makes a two-metre lead with an extra pound attached.

Where is the copy?

Holding up a copy of *AA*, loose jottings or even your shopping list – the Thingi can get to grips with all these (and maybe more). A patch of Velcro holds your Thingi to your monitor; a coloured clip holds your notes to your Thingi. The gadget was outright winner of the Wirral business-idea-of-the-year award; "another great British product exported worldwide".



Both left- and right-hand versions of this useful twist of plastic are available. The Thingi costs £5.95 from Overbase – or through *Amstrad Action* mail-order.

At £16.50, Diana is an up-market copy-holding alternative to the Thingi. Clamped to the edge of your desk it can hold an A4 sheet or magazine at any angle or distance; several pivots and joints make positioning easy. Magnets and a plastic clip hold paper to the black metal surface. The magnets are not essential unless you have gale-force winds blowing through your office – I would be afraid of having magnets anywhere near my disks. From RSC Ltd Diana is made of hard-wearing steel and should stay around for many years.

Joysticks in stereo

If you enjoy two-player games, simultaneous or alternate, then you'll know what a hassle it is to swap the joystick or have one person use the joystick while the other is stuck with the keyboard (not that the Amstrad keyboard is that bad). A dual-joystick adaptor is the perfect solution.



Several companies produce these stereo (?) connectors: among them are Frel Ltd (£4.95), RSD Connections (£6.95) and Lightwave Leisure (£11.95). And, yes, they all have different names and prices: respectively Joycon, Amstrad Joystick Splitter and Joystick Interface Cable. The neatest (and cheapest) is Frel's Joycon: a tiny, matchbox-size bit that plugs into your joystick port. If you have plenty of room on your desk, the Splitter or Interface are fine.

Note that Lightwave Interface's second joystick port uses fire button 2 as standard – this causes problems on games such as *Kettle* and *Ikari Warriors* or other games without a redefine option: you can't fire.

Printer over paper

Short of space? Viglen has several stands that can hold your printer atop the pile of paper. From underneath, the paper has an unhindered path to the roller. For a clear perspex stand – very stylish – you can expect to shell out £19.95. A flat-packed stand that you assemble yourself sells for £12.95.

A binding arrangement

Having loose printouts, screen dumps and listings scattered around gives them a high tendency to shuffle or walk off. The best way of keeping them under control is in a binder.

Discspeed has a selection of strong PVC binders: 9.5 by 11 inches to hold 80-column or A4 paper (£9), 15 by 11 inches for 132-column (£11.03). They come in a variety of colours.

Pretty ribbons for her DMP

If you have an odd printer and are having a tough time replacing the ribbon, try Discspeed. The Kent firm seems to cater for all the more popular printers and some of the not-so-popular. Prices start at 99p for some makes. Ribbons for the DMP 2000 or 3000 retail at

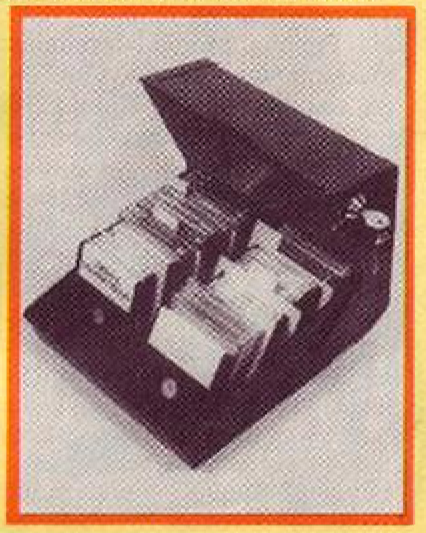
£4.15, and for the Brother Hr series at £3.24.

Ribbons for multistrike printers are also available: Juki 6100 at £2.23 and IBM Displaywriter (£3.81) for instance. There are also red, green and blue ribbons for printers such as the Epson Mx 100. Prices start at £3.87.

Perhaps you aren't interested in any of the ribbons so far. How about correcting ribbons? There must be something among that lot.

Three-inch boxing match

There are several manufacturers of three-inch disk boxes. Data Aids Plus has an excellent selection. Discspeed sells a few. Its Mediamate model holds 15 disks and costs £9.90, or £11.90 for a lockable version. The ABA M60t holds 50 three-inch disks (in their plastic cases) or 60 three-and-a-half-inch disks and costs £15.90.



The Proto three-inch disk box is neat and compact. It's sold in many branches of WH Smith at £5.95 or from Amstrad at £6.95. It holds 10 disks. The box folds back on itself to fan disks out for an easier display.

RSC also produces boxes for your disks. Although not specifically for three-inch disks, but rather for 3.5-inchers, they do a fine job of holding Amstrad disks in their individual plastic cases. Two types of boxes, both lockable, are available: the RSC 30 holding (you guessed it) 30 naked disks or 15 cased, and the RSC 60. They retail at £11.50 and £14.95 respectively.

Counter-glare, anti-radiation

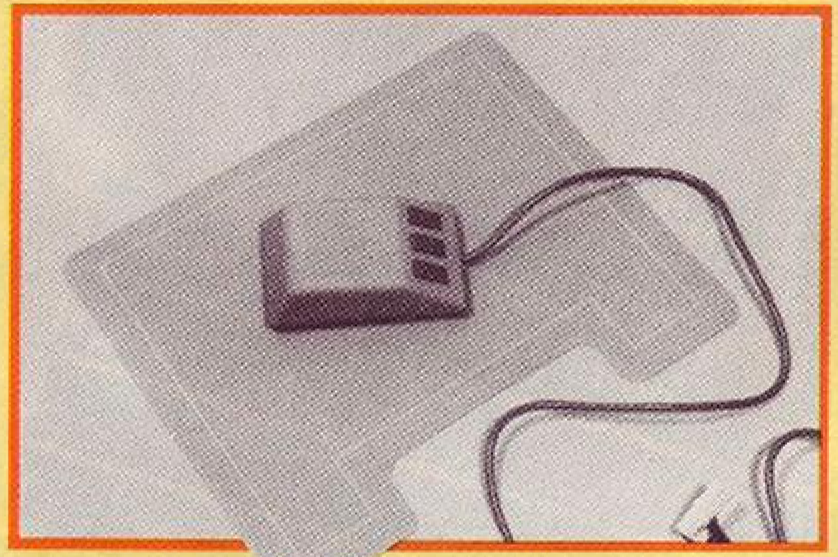
If your monitor is close to a window (as mine is) there's a fair chance that at some point during the day sunlight will come flooding through (if it's not raining). You could move the monitor, wear sunglasses like our esteemed editor, or use an anti-glare screen or filter. SBS Computer Supplies makes a filter to fit flush against your Amstrad's screen, held with Velcro strips. For £29.99 you can avoid glare and eyestrain.

If you're worried about radiation coming from the screen, as opposed to stray light from elsewhere in the room, the Crown Filter (known not long ago as the Amsfilter), imported from Spain, claims to absorb up to 62% of radiation emitted from the Amstrad's monitor. This "harmful" radiation is said to "cause irritated eyes, chapped skin and dry lips" (that explains the need for a flagon of cider).

Not only is the Crown Filter claimed to remove radiation, it also "improves contrast, eliminates reflections and defines characters" (?). The price for this safety is £35.

Des. res. for pet rodents

Is your mouse collecting a fluffy ball? Why not give it its own pad? Overbase, the maker of the Thingi, has produced a £5.99 surface where your mouse can have a clear run: a rectangular area 11 by 8 inches. The £6 Mouse Pad keeps your pet clean and should prolong its life. (Exercise wheels and water containers not yet available, unfortunately.)



New ink for old ribbons

Aladdink will re-ink most makes of fabric printer ribbon. Prices depend on model – the DMP ribbon, for instance, costs £2.15 to re-ink. Nick Godwin of Aladdink, in the Scottish Borders, says he uses special ink "guaranteed to be the right stuff for keeping the print-head lubricated." Phone for a price quotation for rejuvenating your particular ribbon.

Dust: prevention and cure

BBD Dust Covers produces nicely stitched dust-covers for all makes of computers. Matching the CPC's colour scheme – a smart dark grey nylon with red piping and Amstrad logo – there are keyboard and monitor covers (£7.50 the set), and a printer cover for the DMP 2000 or 3000 (at £4.50). Don't forget to specify your exact model of machine and monitor when ordering.

But if crumbs, hair and dust have already followed their natural tendency and migrated into the tiny cracks on your keyboard, what better cure than a vacuum cleaner? No, not the one mum pushes round the living room but RSC's Mini Super Cleaner.

This hand-held, battery-powered fellow can blow or suck away all the gunge that gets between your keys, into your disk drive or among that tangle of cables between the CPC and the monitor, where no cloth can go. Cleanliness comes for a tenner (less the usual bob).



Spike smoother

Your computer feeds on power: electricity. For 90% of the time everything runs smoothly; then one day your computer blacks out at a most inconvenient time. The reason: probably dirty electricity.

Impure electricity takes several forms: surges or sags on the mains which usually occur when heavy loads – perhaps the refrigerator – are switched on or off, fluctations caused by power variations, spikes or bursts of electricity (which can reach several kilovolts) due to lightning or other faults, and noise generated by electric motors in vacuum cleaners etc.

If you're worried about corrupted data or a dead computer, several products from Data Aids Plus may be of use: anti-surge plug (£12), anti-spike block (£25.60), noise filter (£27.50). Or you can have a 4-in-1 safety device: a four-socket block capable of removing spikes, surges, fluctuations and noise for £34.95. In each case you just plug the computer into the device and the device into the wall socket.

Fit a kit for £53.50

If you're not a carpenter, Heathwood Products for £53.50 supplies all the bits you need to build your own computer desk, ready-cut and flat-packed. All you have to do is assemble it. Find a cross-point screwdriver and get to work.

Two leaflets show you how – one in pictures, the other in words. You will need both if you want the pile of wood actually to look like a desk. When you pick up a piece of desk you will notice its quality – thick and heavy, oak-textured melamine-faced chipboard. With the help of another person, my desk started to take shape. But if you have a power screwdriver, use it: my hands have lovely blisters.

Once all the screws have been inserted and screw-caps fitted, you'll be pleased with the result. I certainly was. The CPC fits a treat. There is a gap at the back of the desk where you can put all

wires out of sight (and mind). If your printer isn't too large, that too can be placed on the desk – there's ample room for a DMP 2000, for instance.

Heavy-duty safekeeping

The Fire Chief is a cute-looking box that's fireproof, tamperproof, hoseproof (would have been simpler to say waterproof) and stray-magnetic-fieldproof. It has a cute price: £395. However, as Richard Knight of Data Aids Plus says, "It is the cheapest fire safe of this type available, has passed the stringent 1000°C Swedish fire test, is lightweight at 25 lbs and can store approximately 50 three-inch cased disks. It's a winner. And portable too." The safe, made by Rexel, is small enough to fit on the desktop or in a drawer, and you can reprogram yourself to pop disks into it as easily as into the drive.

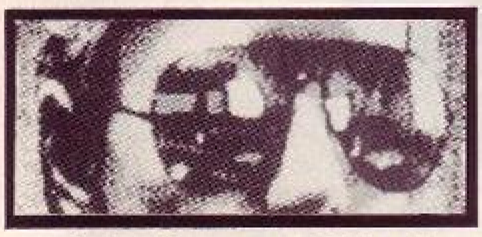


Ear preservation

Mayfair Acoustics provides virtually soundproof cabinets for printers – ideal if the high-pitched shrieking sound drives you potty. Starting from £80 and ranging up to £300, the cabinets come in several sizes and can hold many of the odd-shaped printers. To quote SBS, "If we don't have the size you need, we'll make it."

Recommended clothing

Dressing correctly for using your computer is most important, so take a few tips from an expert at looking cool behind the keyboard – the editor.



Reflective sunglasses are essential. Not only do they act as an anti-glare device and stop your eyes getting tired but they stop people disturbing you while you're trying to work. This is because they can't see your eyes and will find it impossible to talk to you.

Peaked hats are a definite aid to concentration: they can be pulled down so that nothing in the room will distract you from the monitor. Hats and sunglasses also combine as a handy cover for a quick nap during office hours.

When playing games, wear a stout pair of shoes. Lashing out at the nearest object after losing a life can lose you your toes as well if you've got only your socks on. Similarly, boxing gloves can stop you breaking your knuckles on the wall, but they may impair your joystick handling.

Always wear scruffy trousers or skirts when playing games, as it won't matter when you have to react quickly with the joystick, give a yank on the cable and deposit cups of boiling coffee into your lap. Cricket boxes are handy for this eventuality as well. Finally, you should remember that clothes affect your attitude: violent, garish ones for playing games and soft tones of blue and grey for word-processing.

Art-deco Amstrads

Our amazing cover computer may have inspired you to do something similar to your own machine. So here to give you some advice and warn of pitfalls is our very own art editor, Trevor Gilham.

For the fanatical "customizers" among us, eager to give their machine that truly individual look, there is an assortment of paints, papers, fabrics and so on to satisfy their craving. The wacky 464 on the cover shows just how far you can go.



This conversion cost about a tenner for a couple of cans of car spraypaint, a roll of baking foil, the odd piece of fur, Letraset and coloured paper for those hot-rod flames up the side. We also considered mirrors, Alan Sugar aerials, spoilers and furry dice. The whole job took about a day and a half but was quite difficult. Both the monitor and keyboard had to be dismantled so the paint could be sprayed without damaging the electrics.

You don't have to go this far, as long as you keep the paint away from the machine's openings, use brush-applied paints (not watercolour) or even colour some paper or card and then stick that on. Foil produces sparkling results; fur, fabric, tapes and transfers extend that individual look.

If you paint the machine a lighter colour than it is now you need to apply a white primer in order to get a clean, bright colour. Painting directly onto the black plastic casing will make the colours appear dull.

For customizing the outside of your CPC the sky's the limit, but you should always be careful not only how you customize but also what you use to do the job. Some paints and adhesives can damage the plastic of your machine. Have fun, and if you do have a go, send us a picture of the finished item, and we can make your Amstrad as famous as the one in *Eastenders*. **AA**

Where to go to get these gadgets

Aladdink ☎ (08907) 50968
4 Hurkur Cresent, Eyemouth, Berwickshire, TD14 5AP

Amstrad Consumer Electronics plc ☎ (0277) 22 8888
169 King's Road, Brentwood, Essex, CM14 4EF

BBD Dust Covers ☎ (0257) 42 2968
The Standish Centre, Standish, Wigan, Lancs, WN6 0HQ

Crown Computer Products ☎ (0704) 89 5815
Burscough, Ormskirk, Lancs, L40 4AB

Data Aids Plus ☎ (0458) 25 2855
Westover, Langport, Somerset

Discspeed ☎(0959) 62117
Freepost, Westerham, Kent, TN16 1BR

Frel Ltd ☎ (0584) 4894
1 Hockeys Mill, Temeside, Ludlow, Shropshire, SY8 1PD

Heathwood Products ☎ (0952) 61 4944
A2 Lower Bar, Newport, Shropshire, TF10 7PQ

Lightwave Leisure ☎ 051-639 5050
PO box 23, Wallasey, Merseyside, L44 1EW

Mayfair Acoustics ☎ (0745) 32484
Coast Rd, Rhyl, Clwyd, LL18 3US

Overbase Ltd ☎ 051-647 8981
1st Floor, Trace's Building, Conway St, Birkenhead, Wirral, L41 3JB

RSC Ltd ☎ (0923) 43301
75 Queens Rd, Watford, Herts

RSD Connections ☎ (0920) 66284
PO Box 1, Ware, Herts

SBS Computer Supplies ☎ (0273) 72 6331
Clarks Industrial Estate, Newton Rd, Hove, Sussex, BN3 7BA

Viglen ☎ 01-843 9903
Unit 7, Trumpers Way, London, W7 2QA

Watford Electronics ☎ (0923) 37774
Jessa House, 250 Lower High Street, Watford, WD1 2AN

AHEAD OF ITS TIME

AMSTRAD
COMMODORE
SPECTRUM

CLASSIC COLLECTION

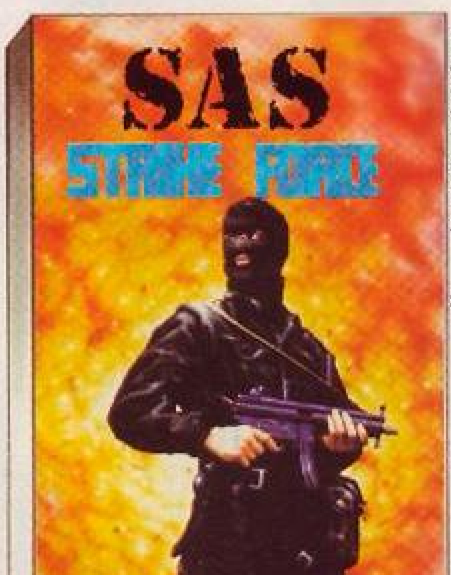
New from Mikro-Gen, the exclusive Classic Collection offers four superb games in one. Guaranteed to give hours and hours of play.





Classic Collection 1 available on Spectrum and Amstrad.
Classic Collection 2 available on Commodore.
Both contain a four-pack of top selling Mikro-Gen games including the classics Pyjamarama and Witch's Cauldron.

Amstrad	Cassette	£9.95
	Disk	£13.95
Spectrum	Cassette	£9.95
Commodore	Cassette	£9.95
	Disk	£13.95



SAS STRIKE FORCE
Join forces with the country's elite team of marksmen and pit your wits against the terrorists. This game is not for the fainthearted. Only the best will succeed.

Amstrad	Cassette	£9.95
	Disk	£13.95
Spectrum	Cassette	£9.95

NOW ON COMMODORE 64



FROST BYTE
By popular request, now available on Commodore 64. Frost Byte is an eery game of monsters and caverns. Something to get your teeth into – if you can stand the danger.

Commodore	Cassette	£9.95
	Disk	£13.95

Available from all good software stores now. Look out for the distinctive pack.

Mikro-Gen Software
44 The Broadway
Bracknell, Berkshire
Telephone 0344 427317

AHEAD OF ITS TIME

As eas

Art packages are getting tastier. Pat

Easiart

Micro-Draw, £14.95 cass, £16.95 disk – all CPCs

If the name *Easiart* sounds familiar to you, it may be because Interceptor released a program called *Easyart*. This review is about a much better offering so be wise with your eyes and don't buy the wrong one.

This is yet another art program and is not as complete as some. It can edit pictures only in mode 1 (the Amstrad's four-colour mode) and can draw in only one corner of the screen. Mind you, it performs well enough within these limitations.

It starts up by asking you whether to load the art program or some utilities for integrating *Easiart* features such as mouse control into your own programs.

It then asks if you have a trackerball, a mouse or a joystick. If you have not any of these, don't buy the program. When you press the cursor keys your graphics cursor moves by one pixel, so this is a worse keyboard clobberer than *Daley Thompson's Decathlon!*

On screen, you are shown a bar of icons on the right and some coloured blocks along the bottom. There are five of these: one each for the colours and one showing the colour in use.

Now to the program. This has a huge selection of features. Here are some of them.

—Spraycan. Variable nozzle; can splatter many different patterns onto the screen.

—Paintbrush. Over 40 patterns, each in two colours. You can swap the colours very easily and get 160 different textures; you can edit some of them to give you even more. The filling routine is very fast.

—Geometric drawing. Straight lines, rectangles, squares, triangles and circles all have their own icons and are very easy to draw.

—Icons. Can be edited and put straight onto the screen. Very useful for people who want to draw designs, such as electronic diagrams.

—Text. Two heights, bold and normal printing, sloping right or left, rotated. Put on the screen with pixel accuracy.

—Rubber. Alters the presently selected ink to ink 0, that is, the background colour. Excellent range of sizes. Once switched on, the rubber stays on until deliberately switched off.

—Zoom (the icon is a magnifying glass). Creates a pixel image that you can edit without fuss.

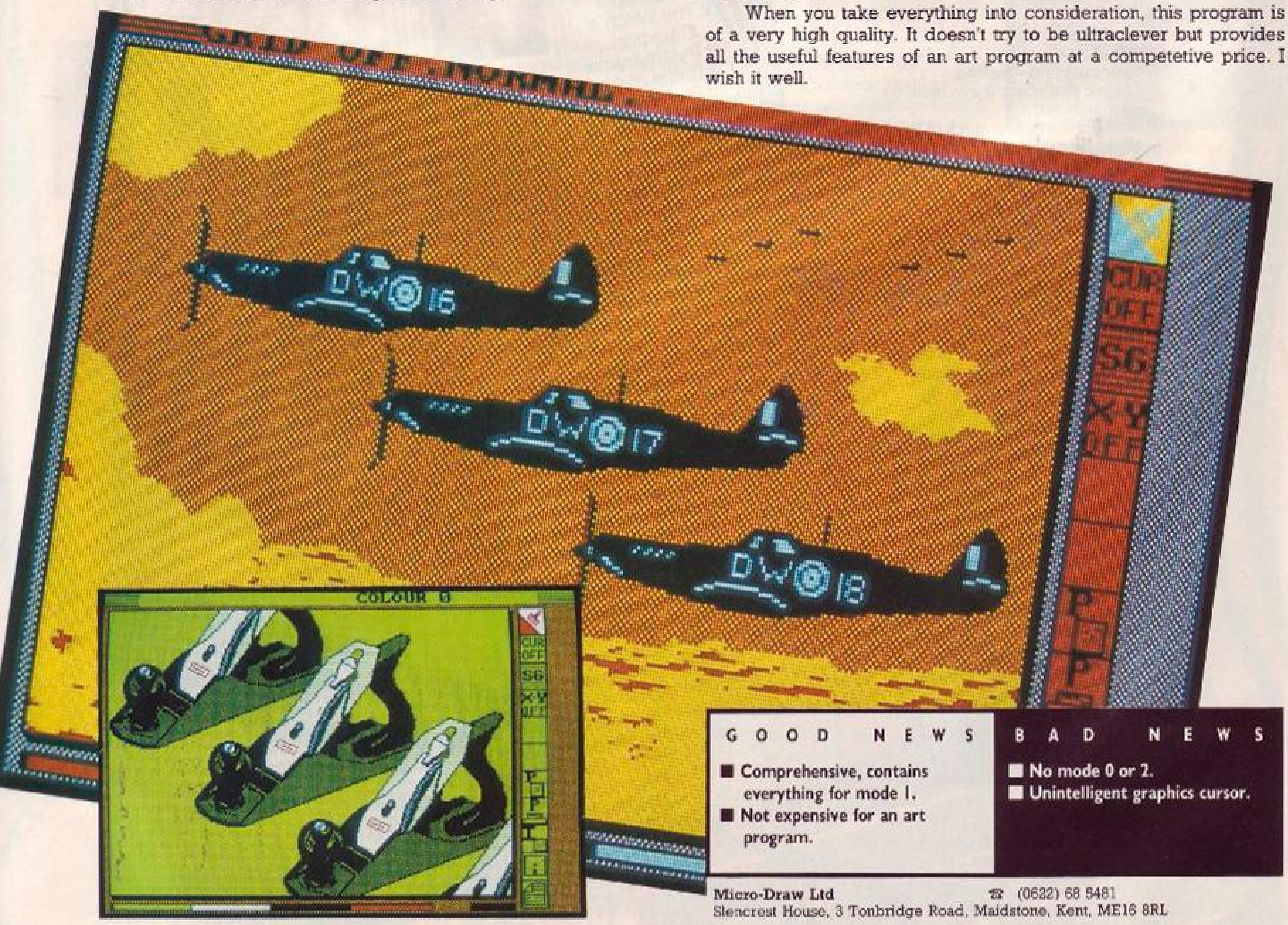
Changing inks is very easy. Simply select the icon and press Fire to change it.

If you leave the program to edit the icons or texture patterns, then the picture is preserved in memory until you return to it. Also, when you save a picture the program also saves the colour information, so on reloading the colours are correct.

If you have a strange non-Epson-compatible printer, you can create a new printer-driver routine that will cope with picture dumps to it. The program also asks you if you want single- or double-density print. Results were quite excellent.

One very annoying point is that the graphics cursor is "unintelligent" – it stays at the same speed until you press a key. The whole idea of using a joystick is not to bother with the keyboard. This small oversight makes the program a little clumsy to use in comparison to *Cherry Paint*. If you have a trackerball the problem doesn't arise.

When you take everything into consideration, this program is of a very high quality. It doesn't try to be ultraclever but provides all the useful features of an art program at a competetive price. I wish it well.



GOOD NEWS

- Comprehensive, contains everything for mode 1.
- Not expensive for an art program.

BAD NEWS

- No mode 0 or 2.
- Unintelligent graphics cursor.

Micro-Draw Ltd ☎ (0622) 68 5481
Slencrest House, 3 Tonbridge Road, Maidstone, Kent, ME16 8RL

y as pie

McDonald tucks into two new ones

Cherry Paint

Siren Software, £9.99 disk only – all CPCs

Cherry Paint has knocked me off my feet. It makes the Amstrad look like an Apple Macintosh. Now those machines cost around £2000, so this program represents the bargain of the decade. What do you get for your cash? *Cherry Paint* is an art program which can be used to produce black-and-white pictures in mode 2, the Amstrad's screen mode with highest resolution.

Like the Mac, it works in user-friendly WIMP style. That's the buzzword for windows, icons, mouse and pointer. *Cherry Paint* will work through the keyboard, a joystick or a mouse – run a configuration program to select which, or to set up printer controls.

The program only has one screen. Down its left, icons – pictures rather than words on a menu – select different methods of putting ink on paper: a pen for freehand drawing, a spraycan, a paintbrush and a rubber. You can also print text anywhere on the screen.

The others are a little more abstract. The hand is for rolling the screen around, so that you can use the whole rather than just one corner. The line is for drawing lines; they behave like rubber bands, stretching and contracting until you set them. Zoom is easy to use. Move a small window about the screen; its contents are magnified, and on the blow-up you can change pixels individually. You use this option for "cut and paste" – see below. The other two icons draw boxes.

To the left and bottom left are icons to change the line texture and painting. You can draw thick chunky lines or pixel-thin ones, and use a fine or hefty brush. At the bottom is the palette of textures. These are the 40 patterns that you can actually put on the screen, ranging from white through dots and hatchings to jet-black. Unfortunately you cannot edit them to create new textures.

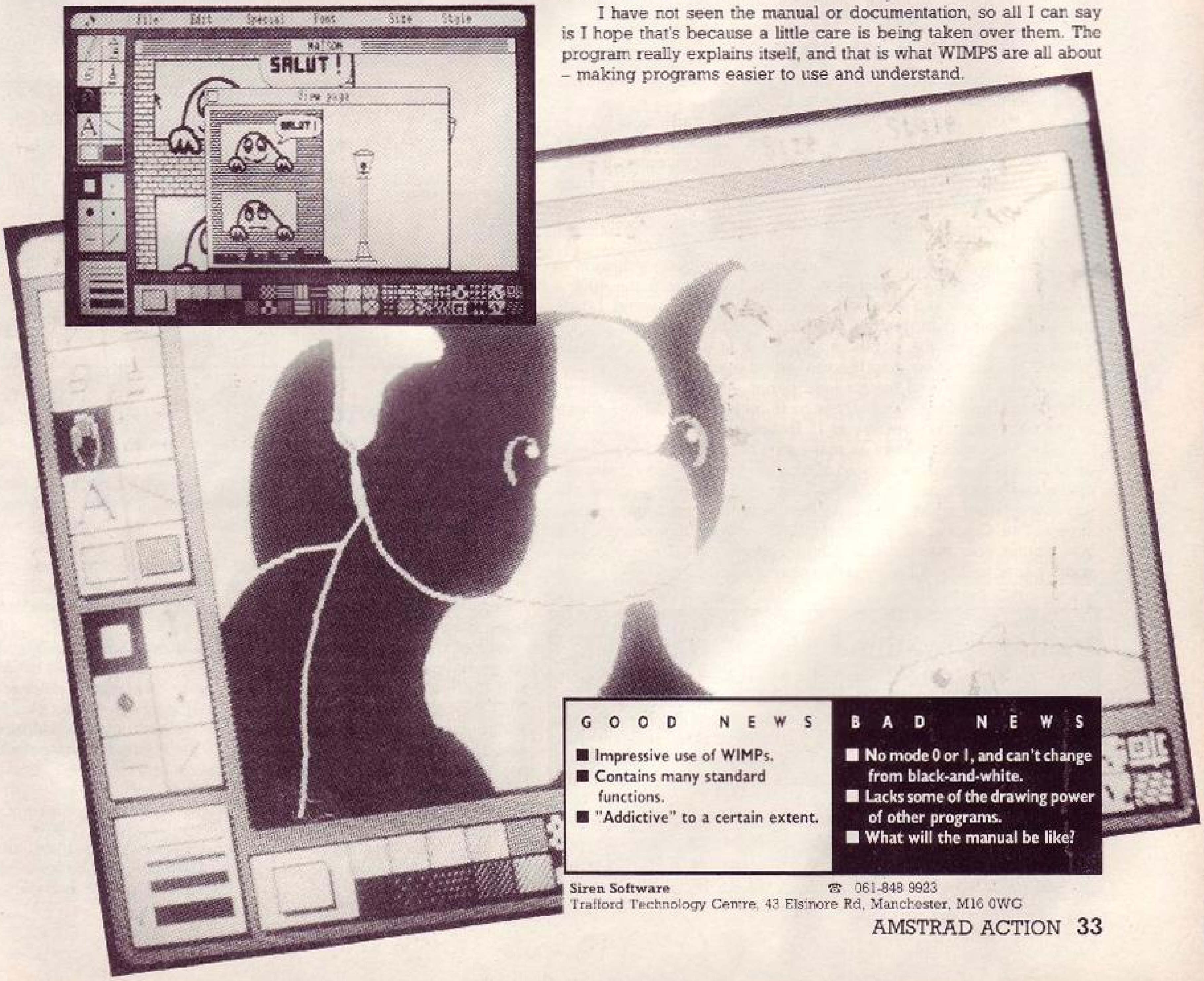
One pull-down menu simply tells you that the program was written by Pascal Higelin. As you might gather from the demonstration pictures, *Cherry Paint* is French in origin. The second menu lets you load and save pictures, select disk-drive, clear the screen or print out the picture. While the printer is chuntering away, you can move the cursor around. That's totally unneccessary, but is still a pretty impressive feat of mimicry – *GEM* is exactly the same.

With the third option you can cut out a portion of the screen and do all sorts of clever things with it, like mirroring it in either axis, copying it to another location or pasting it somewhere else. The fourth allows you to see the whole screen at once.

The next option lets you select a font – however, only one font is available, so this seems a waste of time. From the last two menus you can change the size and style of any text.

Cherry Paint has one huge advantage over many of its rivals: it's so well designed and laid out that you *want* to use it to draw pictures. The control of the pointer is "intelligent" – it moves in pixels at first, but if you keep moving it accelerates. That way control can be as fine or as crude as neccessary.

I have not seen the manual or documentation, so all I can say is I hope that's because a little care is being taken over them. The program really explains itself, and that is what WIMPS are all about – making programs easier to use and understand.

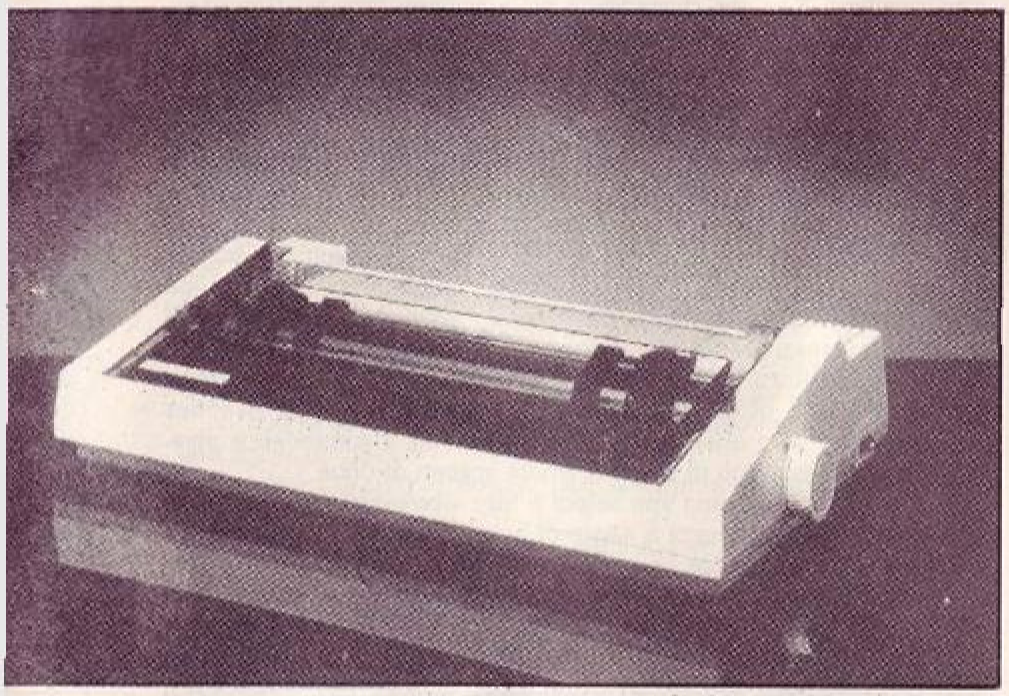


GOOD NEWS	BAD NEWS
■ Impressive use of WIMPs. ■ Contains many standard functions. ■ "Addictive" to a certain extent.	■ No mode 0 or 1, and can't change from black-and-white. ■ Lacks some of the drawing power of other programs. ■ What will the manual be like?

Siren Software ☎ 061-848 9923
Trafford Technology Centre, 43 Elsinore Rd, Manchester, M16 0WG

FEEL THE WIDTH

Richard Monteiro puts paper to Amstrad's latest printer



DMP 4000 printer
Amstrad plc, £401

Amstrad has launched its fourth printer: the DMP 4000. Looks neat. Feels sturdy. But is it of major use to CPC users?

The 4000 is aimed mainly at owners of Amstrad's new PC – or for that matter any IBM clone. It also uses standard Epson codes, so it's happy plugged into most makes of home computer. It has a parallel (Centronics) port: all your Amstrad needs is a simple ribbon connector. It would need an extra interface if you want to drive it from the serial port (RS232) of computers such as the Commodore 64 or ZX Spectrum.

Rather than sticking to the handsome front-loading system of the two previous DMP machines, Amstrad has given the 4000 a Seikosha look: low and solid with paper loading from behind. I think this is a shame. Front loading was handy. And its tractor pushed rather than pulled the paper, so that it was easy to detach the finished job without wasting the next sheet every time.

It takes continuous tractor-feed paper – the familiar stuff with holes along the edges – from three to 16 inches wide. Single sheets or roll paper can be from two to 15 inches across.

The wide roller allows as many as 136 standard characters to be printed across a page instead of most printers' 80. Use condensed characters and make that 233. But few programs make use of this increased paper width. The main beneficiaries tend to be spreadsheets, like *Cracker* or *Supercalc II*. Of course, this dosen't stop you writing your own print routines. For most CPC users, super-width paper will be a luxury rather than a necessity.

Printer problems

We've had two DMP 4000s at the office, but unfortunately neither was in first-class condition. The first had obviously done the rounds of reviewers and fired only half its pins, treating us to a hieroglyphic character set. The second thought carriage-returns were an error code, beeping at us incessantly, and as a result never started printing at the same place twice. With a bit of patience and manual linefeeds we managed to cope.

Two machines is hardly a fair sample, and previous Amstrad printers have been very reliable. So we hope this doesn't indicate a wider problem.

Typeface samples

mini (elite)	@ABCDEFGHIJKLMNOPQRSTUVWXYZ !"#$%&'()*+,-./0123456789:;
draft (pica)	@ABCDEFGHIJKLMNOPQRSTU !"#$%&'()*+,-./01234567
proportional	@ABCDEFGHIJKLMNOPQRSTUV abcdefghijklmnopqrstuvwxy
condensed	@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef !"#$%&'()*+,-./0123456789:;<=>?
NLQ-standard	@ABCDEFGHIJKLMNOPQRSTU 0123456789:;<=>?
NLQ-proportional	@ABCDEFGHIJKLMNOPQRSTUV abcdefghijklmnopqrstuvwx
draft with italics	*@ABCDEFGHIJKLMNOPQRSTU* *0123456789:;<=>?*
draft with double-width	Draft-doubl width Typef

Watch it whiz

When printing out lengthy listings you'll be grateful for the DMP 4000's draft speed: 200 cps (characters per second). It is quite astounding to see the bi-directional printhead whiz back and forth. But there's a trade-off: decrease time and you increase noise by a few decibels – the 4000 is no exception to this general rule for printers.

Things quiet down in NLQ (near letter-quality). This mode gets 50 characters per second onto paper – but not in the high quality I'd expect from a printer of this sort. The NLQ is passable (and faster than many printers) but not the best.

Well over 100 styles of print are available. The DMP 4000 has six main typefaces: standard (Pica), mini (Elite), proportional (where an *i*, for example, takes less room than an *m* on paper), condensed, NLQ-standard and NLQ proportional. To each of these can be added subscript, superscript, double-strike, italic, bold, underline and double-width. It's easy to see where the figure 100 comes from: the number of possible combinations is immense.

9 pins, not 24

The DMP 4000's graphic mode means among other things that you'll be able to produce screen dumps. Data received by his mode is interpreted in a different manner. Instead of printing a character

the data controls each individual pin in the printhead. There are nine of these pins, not 24 as stated in last month's Amscene (which got that impression from Amstrad's press release). There are several graphics modes, giving various combinations of dot density and head speed. Single-density graphic mode allows 816 dots per line, double-density allows twice this figure, and quadruple-density doubles it again.

Other features can be obtained from the 4000 by software commands. Control codes can acted upon or printed out literally. End-of-paper sensing can be disabled. It can print at half speed. You can select any of 9 character sets to suit different countries and languages. It can also handle user-defined characters: you can "download" a predefined character set to the printer, which is much faster than sending bit-by-bit data when you want to see your work in a non-standard fancy font.

The DMP 4000 is a hefty machine and packs a good deal of punch – in terms of functions and speed but also of your bank balance. If you intend to use it only for your CPC, it's an expensive proposition. The DMP 2000 or 3000, though slower, will provide similar features and print quality and for a much more affordable price. The DMP 4000 offers a very upmarket alternative that may appeal to business users. Make sure you can use its extra facilities to the full before deciding on it.

GOOD NEWS	BAD NEWS
■ Has a solid feel. ■ Varied typefaces. ■ Both Epson- and IBM-compatible. ■ Takes paper from 2 to 16 inches wide.	■ Business or not, £400 is a lot. ■ Handy front-loading is gone. ■ NLQ is not the best.

BIG BYTES

Richard Monteiro plugs in a $5^1/_4$" disk-drive and gives it a spin

Megadrive

Silicon Systems, £199.95

Several companies are pushing $5^1/_4$-inch second drives for the Amstrad. Many (including Silicon Systems) claim their drives harmonize perfectly with the existing operating systems – Amsdos, CPM 2.2 and CPM Plus. So far none have achieved particularly good compatibility. Silicon boasts more than most. Have they resolved all the problems? Does the Megadrive deliver?

Perhaps you think one disk-drive is enough. Have you ever used a CPM application program, for example, *Super Calc II* or *NewWord*? Then you'll have found that most of the disk is taken up by the program, leaving precious little space for your data. Sure you could swap disks, but that's not ergonomic or elegant, not to mention time-consuming. And unfortunately certain CPM programs (*WordStar* and its clone *NewWord* are culprits that spring to mind) don't like disks being swapped during a work-session – a rude crash normally results. Backing up disks with one drive is a dreary task involving much disk-swapping. A second drive makes the job faster and simpler. A dual-drive system has its advantages (certainly no disadvantages) under Amsdos as well. When using *Prospell* (*Protext*'s spell-checker) you can place the dictionary disk in drive B and the disk with your text file in drive A – fast and simple. And in its quiet moments drive B makes a great stand for your coffee-cup. *(As long as you don't mind coffee all over your drive, disks and keyboard, that is – Ed.)*

Silicon's $5^1/_4$-inch drive is sleek, has a colour scheme to match Arnold and a good solid feel. As a general rule of thumb, the heavier the drive (excluding the casing and power supply of course), the better its quality.

The Megadrive plugs into the mains and into the second-drive port at the back of your 664 or 6128. If your machine is a 464, it plugs into the connector embedded in the ribbon cable. In all cases, a further interface plugs into the expansion port. This interface just happens to be a stripped-down *Amram* (reviewed in issue 19) – add its full features for an extra £20.

Along with the drive and interface you receive software to format the $5^1/_4$-inch disks and transfer files back and forth from 3-inch to $5^1/_4$-inch. And it performs more marvellous trickery. Read on.

When you plug in an ordinary 3-inch second drive it's immediately usable. As you may have discovered when formatting or cataloguing a disk, either 169 or 178k of storage is available, depending on the format chosen. A formatted disk is divided into concentric circles known as tracks (numbered from 0 to 39); each track is subdivided into 9 equal sectors. Each track holds 4.5k. And 4.5 times 40 is 180, so each disk holds 180k of information. Both Amsdos and CPM reserve 2k for the directory. This explains the figure 178k: the data format. If you format a disk for use with CPM, two tracks (9k) are reserved to hold much of the CPM operating system, leaving 169k: system or vendor format.

If you use the Megadrive as it stands (without the *Amram* interface and software) then the same miserable amount of disk space is available. Why? Amsdos and CPM are configured to read and write to a maximum disk capacity of 178k. Furthermore, the drive mechanism used with the Amstrad 3-inch drives cannot handle more than 40 tracks and, unless told otherwise, the operating system thinks it has only this basic unit to play with.

The Megadrive is a different breed of drive: instead of having one drive-head to read data, it has two. One sits each side of the floppy disk. The disk is inserted only one way up, and the system reads or writes both sides. Moreover, each head is capable of accessing 80 tracks. Just think, ordinary 3-inch disks hold 180k of information on 40 tracks. So 80 tracks and two heads should give you a staggering 4 times 180k of free space. Indeed this is not far off the mark. After space has been reserved for CPM and the directory, the final storage capacity is 706k.

With this beefed-up system, 128 directory entries are possible: 128 different files rather than the standard 64 can be kept on a single $5^1/_4$-inch floppy disk.

For Amsdos or CPM to make use of Megadrive's capabilities, a mixture of software and hardware is required. These come in the form of *Amram* and Megadrive Software. At the start of day, all you need to do is run the software. This copies the number-7 rom (disk rom) into *Amram*'s 16k ram, patching it en route. *Amram* now acts as the disk rom, and all the capabilities of the Megadrive are yours. CPM 2.2, once it too is altered by running a patch file, will accept the Megadrive and all its storage capacity.

One disadvantage is that the interface uses up rom socket 5, moving Amsdos even lower down into user memory. As a result, large programs sitting high in memory might not run.

Adding a second drive may not come top of your priorities list. But as it's a $5^1/_4$-inch drive, fully compatible with Amsdos and CPM and can store over 700k of data (more than two entire issues of *AA*) on each disk, then now may be the time to think again. The Megadrive is most certainly a well thought out product: it delivers!

AA

Silicon Systems ☎ 061-848 8959
Trafford Technology Centre, 43 Elsmore Rd, Manchester, M18 0WG

GOOD NEWS	BAD NEWS
■ Compatible with both Amsdos and CPM. ■ 700k per disk. ■ High-quality double-sided mechanism. ■ $5^1/_4$ disks are as cheap as £1.	■ £200 is not a drop in *my* ocean. ■ Extremely large programs may collide with the interface.

MONITOR WIZARD

Ultra Mon

Bubble Bus Software,
£14.95 disk only

A monitor to beat all monitors? Richard Monteiro looks into the possiblility

Until now Bubble Bus has been known for games but now it's entering the world of utilities. It's a small company with what looks like a big product. *Ultra Mon* is a full-blown monitor with several handy features thrown in. Fine, but what is a monitor? There are two types: the VDU sort of monitor you peer into and the software sort that peers for you. *Ultra Mon* is the one that does the looking or monitoring. It is a tool for examining or altering any part of memory. Among other things, you can run a machine-code program slowly, noting the contents of the Z80 registers and memory as it goes along. In short, *Ultra Mon* is a debugger and development tool for programmers and enthusiasts.

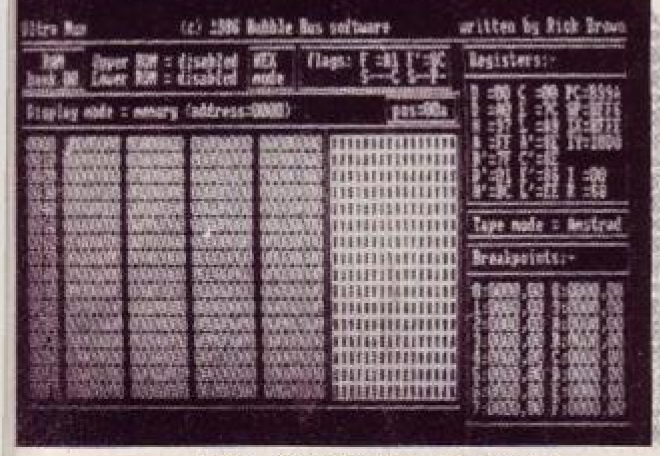
When you run *Ultra Mon*, the screen clears and rows of figures spring to view; if you suffer from numerophobia, it's time to switch off. If you are not experienced in the ways of the CPC or the Z80 microprocessor at the heart of your Amstrad and other computers, then this package isn't ideally suited – although it is much friendlier than most.

From the default screen, pressing Escape lets you type in one of several-score commands, some of them followed by parameters. From here it is even possible to enter external commands (meaning those provided by extension ROMs). If you wanted to erase a file from disk, use `|ERA,"filename"` or if you want to enter Maxam, `|M` does the trick – very neat. You can even return to *Ultra Mon* if the external command takes over control (as Maxam does) – more of that later, though.

The first command I always type in when trying out a new utility is `HELP`. You'll be pleased to know that a screenful of command words appear. The manual suggests that virtually any separator (for example, a comma or space) can be used when supplying parameters to the various commands. In general this is true, but if you find that `Overflow` shows its ugly head too often, use a space as the separator.

Ultra Mon lets you view normal ram, expansion ram (the 6128's extra bank of memory or the extra memory provided by the DK'tronics add-on), on-board roms (Basic and the operating system), expansion roms (such as the disk rom), as well as disk sectors. If you don't want to peek at any of these you had better check that you actually need a monitor! Extra memory (in blocks of 16k) can be switched into locations between &4000 and &7FFF.

The way you inspect memory using *Ultra Mon* may strike you as odd: first select the area of memory you want to view, then press Control-R to read it. Editing memory is achieved using a similar method: select the area to alter, read it, alter it and then write it with Control-W. *Ultra Mon* does not read and write memory directly, but it uses a buffer. Cumbersome? Not at all, the keys used are obvious and having a buffer will prevent (or at least minimize) mistakes.



Numerals are displayed in hexadecimal (base 16). However, entry can be either hex, decimal, octal (fairly useless nowadays although our typesetter is programmed in octal), binary or Ascii.

Debugging and testing a machine-code program is often lengthy, tedious and not always (probably never) 100% succesful. When Basic encounters an error it displays, in its comparatively friendly style, an error message that's generally of enough use to correct the mistake. *Ultra Mon* greatly eases debugging: it lets you run a machine-code program slowly, single-step through each instruction, display, examine or even alter the Z80 registers or program after each instruction. The code you wish to check should be in the range &4000 to &8FFF: *Ultra Mon* itself lives between &40 and &3FFF, stowing further bits from &9000 onwards, next to the system variables.

Another method of controlling a machine-code program during run-time is with breakpoints. A breakpoint is a special one-byte instruction that returns control to *Ultra Mon*, displaying the registers. The dissasembled mnemonic for this byte is BRK. Up to 16 separate breakpoints are allowed.

Ultra Mon maintains a set of pseudo-registers. These can be changed using some of the commands, and then passed to a subroutine or program by issuing a `JP` or `CALL`. When the subroutine (or program) returns control to *Ultra Mon*, the Z80 registers are passed back to the pseudo-registers and displayed. On many occasions the routine you test or jump to will lock up the machine. With other monitors, this usually entails switching off the Amstrad and starting again. Not so with *Ultra Mon*: pressing the function keys *f1* to *f3* simultaneously will restart *Ultra Mon*. Obviously this won't work in every case, but if *Ultra Mon* hasn't become corrupted by the routine you jumped to, there is every chance this method will work – a very useful feature.

If disk organisation, copying and inspection are your favourite pastimes then you're in for a treat: *Ultra Mon* is capable of these too. You can view or alter individual sectors – not just standard sectors either. Disks can be formatted to CPM, Data or IBM specification; you can also create your own formats (ideal for adding protection to your important programs). Individual tracks can be formatted, which allows you a fair scope when devising the ultimate protection. Files and disks can be copied from within *Ultra Mon*. Other utilites include an extended-catalogue function and a directory editor.

Ultra Mon's uses do not end there: you can load and save Spectrum files, dissasemble object code into scource code, perform simple mathematical calculations, create non-standard cassette files, input or output any value to any port, map a disk, display information on extension roms, search for a string, work out checksums on memory locations...

A lot of thought has gone into *Ultra Mon*, and a lot of program has been squeezed into 16k. It has taken two years to arrive, but finally a high-standard, relatively simple-to-use, big-on-features monitor is available for the Amstrad CPC range. If you enjoy losing yourself in hex or are a serious programmer *Ultra Mon* will fill the bill.

AA

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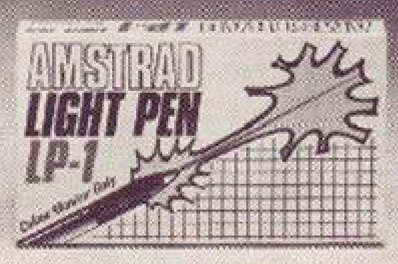
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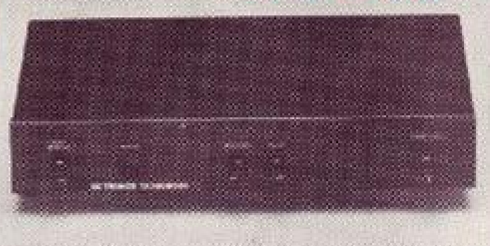
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★*MULTIFACE 2 is EXTREMELY FAST in both SAVING & RELOADING – its INTELLIGENT COMPRESSING and TURBO saving to disc/tape makes a standard 64K program reload typically in up to 20 SECONDS from disk – other products take 4-5 minutes longer! – or just over 5 minutes from tape. The most EFFICIENT COMPRESSING also results in minimal space used on disc or tape.*

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JUST COMPARE THE FACTS FROM AN INDEPENDENT TEST ON MICRONET:

MICRONET tested all four back-up devices currently on the market: *ACTION REPLAY* by Datel, *DISC WIZARD* by Evesham Micros, *IMAGER* by Mirage and *MULTIFACE 2* by Romantic Robot. They were all tested on the TOP 10 GAMES for the week ending January 1987. Each copier was tested at the same point in each game and in the event of a failure the reviewer tried twice more. These are some of the results:

Out of overall 100% success claimed, the actual percentage was:

ACTION REPLAY — 20%	DISC WIZARD — 40%	IMAGER — 50%	MULTIFACE — 100%

MULTIFACE was confirmed as the ONLY TRULY AUTOMATIC back-up device — all other copiers require manual setting of colour, screen mode, windows, etc. — provided they do not crash in ther first place! This when tested on 10 games, took altogether:

ACTION REPLAY — 15 mins	DISC WIZARD — over 175 mins	MIRAGE — over 66 mins	MULTIFACE — not applicable

The actual SAVING time was in seconds:

ACTION REPLAY — 33.4	DISC WIZARD — 44.5	IMAGER — 36.6	MULTIFACE — 32.5

Naturally, you should add the SAVING time and the SETTING UP time together to get a true saving time per each game:

ACTION REPLAY — over 2 mins	DISC WIZARD — over 18 mins	MIRAGE — over 7 mins	MULTIFACE — 32.5 seconds

The loading time took on average in seconds:

ACTION REPLAY — 21.7	DISC WIZARD — 40.7	MIRAGE — 36.6	MULTIFACE — 19.7

Each device made a back-up of a different file size — on average:

ACTION REPLAY — 68K	DISC WIZARD — 89K	MIRAGE — 53K	MULTIFACE — 49K

The summary of the tests on MICRONET?

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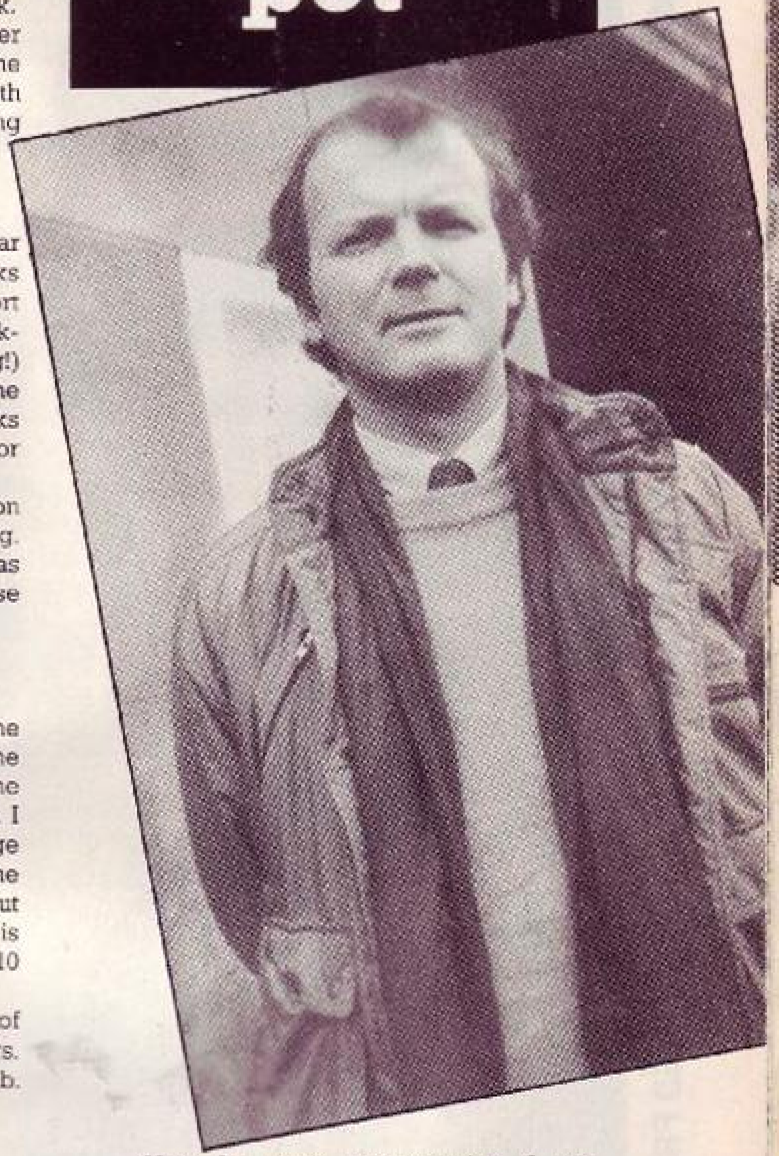
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A day in the life: Teacher's pet

Martin Farrar teaches science, maths and English at Ashwell Junior High School in Hull. His Amstrad churning out tests does little to raise his popularity rating among the kids



Early-morning rising in the middle of winter is one of the curses of modern life – or any other life. Over breakfast of tea and toast in the dark and cold I read the worksheet I prepared last night for the children in my charge. More curses as I discover a grammatical error. Fortunately, with a CPC 6128 and *Protext* on rom it's the work of a moment to load, correct and print out the revised worksheet on a DMP 2000. While I'm at it I print out a songsheet for the choir I will be seeing in the lunch hour.

I have a growing collection of songs, worksheets, information sheets and letters to do with school work. With *my* keyboard skill the initial time I spend on typing such things is not inconsiderable, but as the store of files grows the time taken in producing new files from old decreases. "New files for old!" – it has a ring to it!

Churning out tests

At school I duplicate a science test prepared a week ago to give to the fourth-years in the afternoon. While they are taking the test I am able to mark and find the raw scores for the third-year test given the day before. The ease with which I churn out tests on the word-processor does little to raise my popularity with the students.

At home again I wait my turn as sons Paul (11) and Robert (5) play on the computer. I reread *Amstrad Action*, one of the two computer magazines I buy regularly. Many of my purchases I made after reading the reviews in *AA*: the Rombo romboard, *Protext*, *Batman*, *Art Studio*, *Spindizzy*, to name but a few. Paul and Robert are zapping everything in sight on a borrowed tape version of *Gauntlet*. I decide to kill two birds with one stone and send off a subscription to *AA* asking for a copy of *Gauntlet* on disk as a bonus. Amazing value! (What a creep!)

Robert tries *his* program out next. I called it "Robert's sentence maker": it enables him to build sentences from words he has brought home from school. He takes a perverse delight in "Daddy is in a tree eating the cat" or "Paul is a silly dog in a toy shop" and then prints them out merrily, giggling all the while. Arguments break out between the two and I cry "Enough!" At last I am able to do some work.

Before starting work I print out a letter for my wife, Cathie, who is a little wary of the machine – unlike Robert, who grew up with phrases like "This joystick is no good!" falling from his lips. I also produce a couple of forms stored on disk that she needs regularly in her role as a childminder.

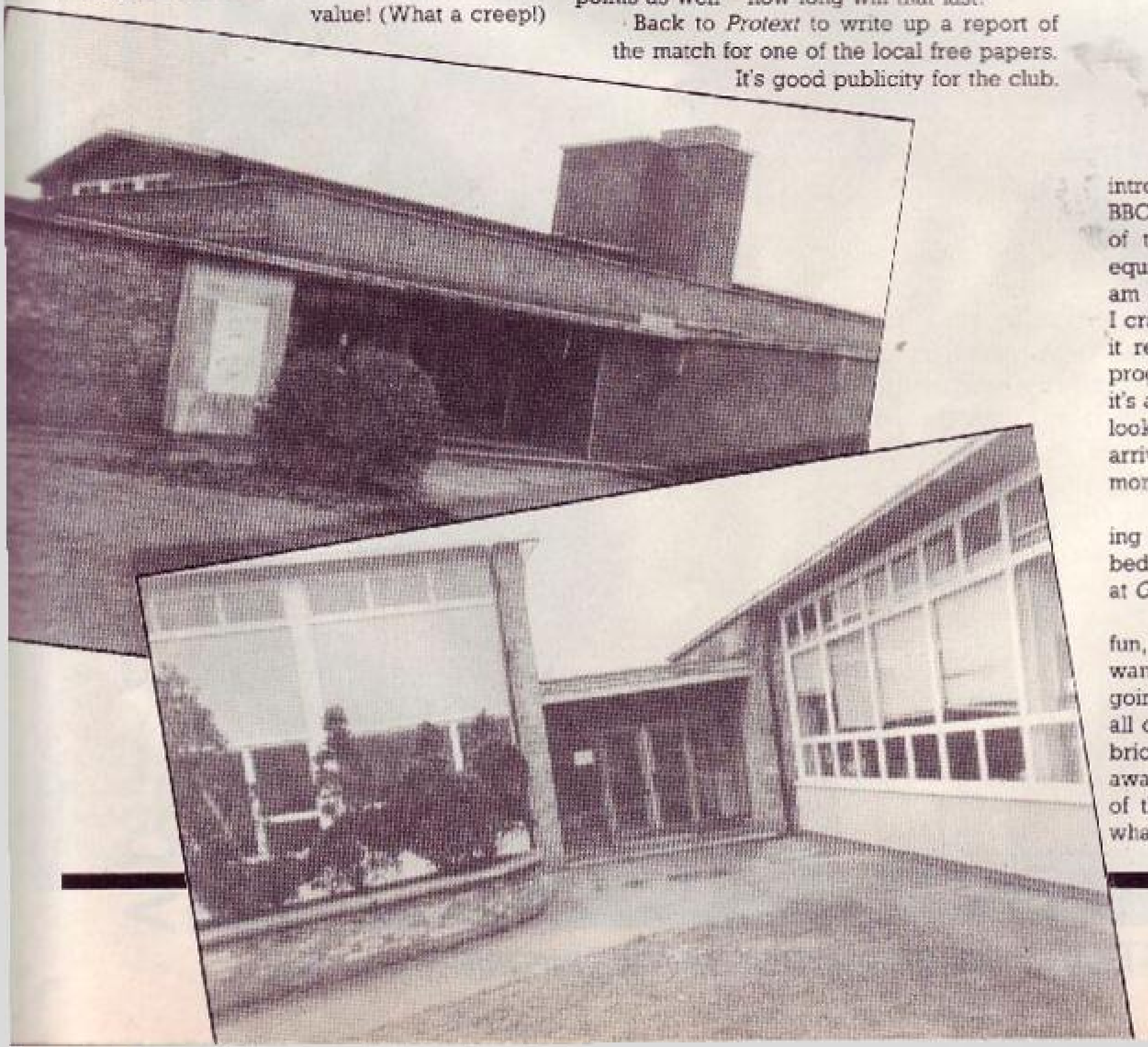
Taking the raw scores from the third-year test I load up a program to change the marks to a standard percentage scale and then sort them into order. I list the marks in my markbook (I don't use the computer for everything!) and then load up a program to write some reports on the tested children. These remarks I will later print out so I have a hard copy for the coming open evening.

Leaving school work I concentrate on chess – my other hobby apart from computing. I am secretary of the Beverley Chess Club as well as captain of one of the local teams. I use the computer in a number of ways.

Checkmate

First I load up a program which lets me store and play through games. As I lost in the last match, I study other games in the same line to find out where I went wrong. When I reach the "Aaah, yes, if only ..." stage I change programs and enter in the results for all the players in the team. The program prints out the scores so far, and I see our top board is doing particularly well. My grade is up 10 points as well – how long will that last?

Back to *Protext* to write up a report of the match for one of the local free papers. It's good publicity for the club.



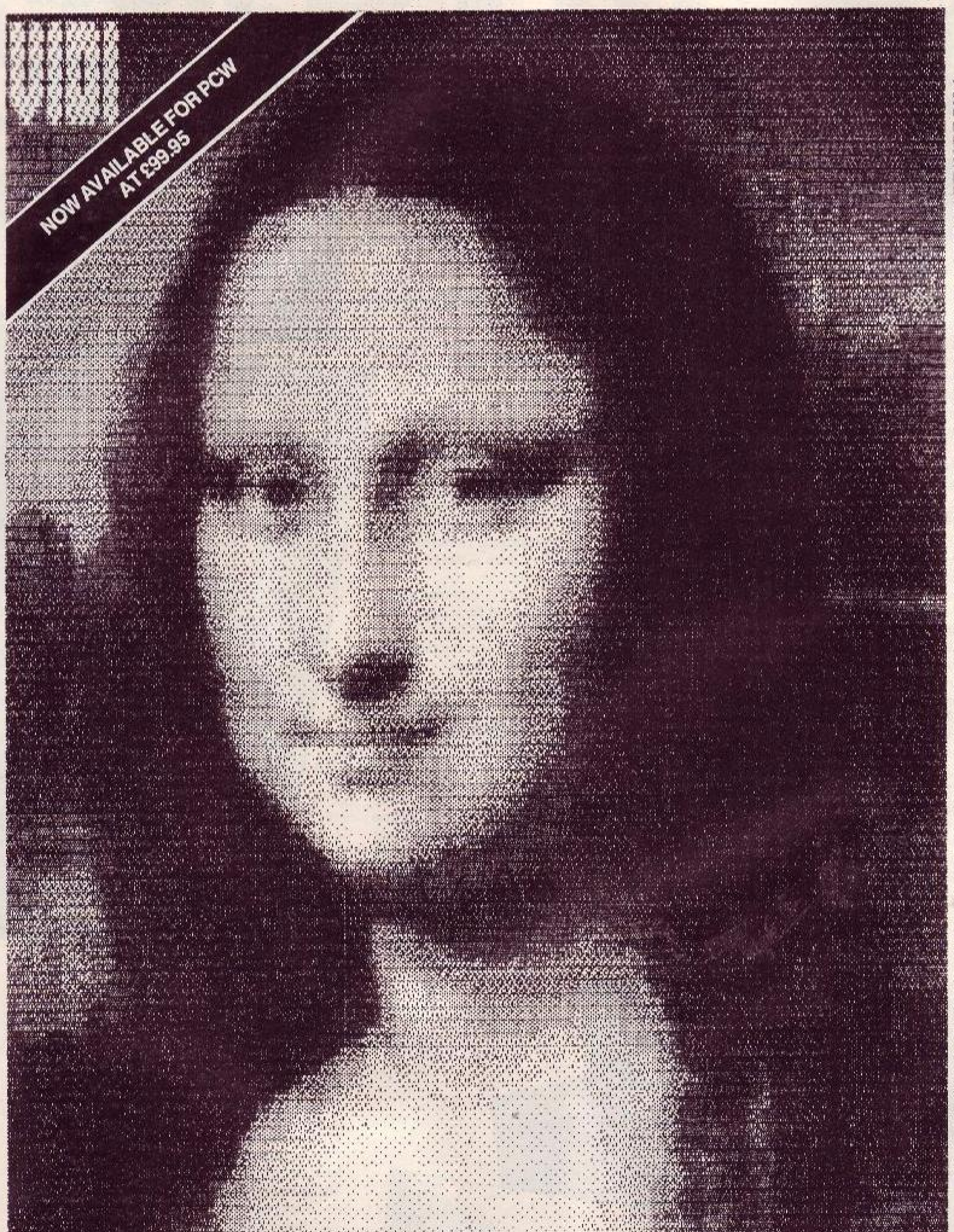
Now for some programming. I was introduced to computers through the dreaded BBC machine (good – but expensive) and one of the commands I miss is `VDU`, which is equivalent to `PRINT CHR$` on the Amstrad. I am developing an RSX command and tonight I crack it. Painful! The difficult part is making it relocateable, which I do by converting a program from an old magazine. At the moment it's a question of feeding in hex numbers – I'm looking forward to the day when *Maxam* arrives on rom. (I'll have to stop this: it sounds more and more like an advert for Arnor.)

Eureka! It works! And some very interesting results that I didn't expect. Now time for bed. Wait... I think I should just have a look at *Gauntlet* – just to check it out, you know.

A bit of mindless blasting may be good fun, but it does lead to strange dreams: wandering around wondering where you are going and what you are doing, little monsters all over the place, banging your head against brick walls and feeling your energy drain away as you put one weary footstep in front of the other. The teaching profession is not what it used to be!

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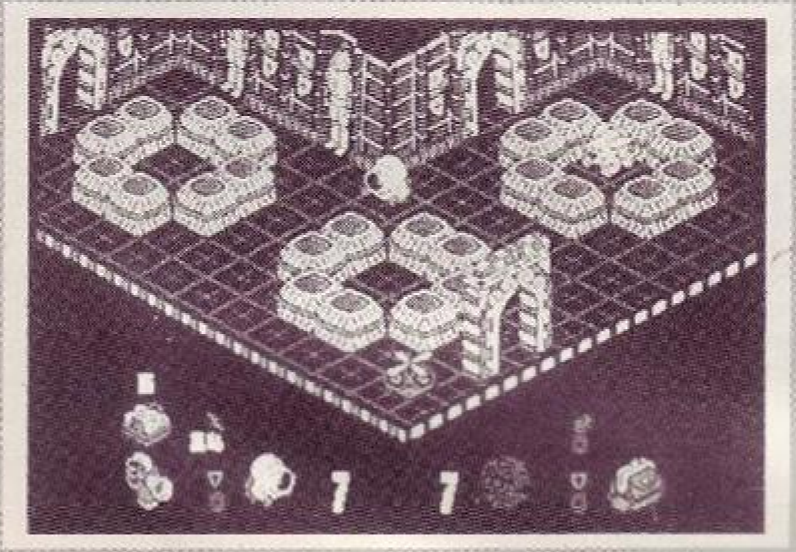
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ACTION TEST

MASTERGAME



GAMES TESTED

Clean pair of heels

There's one outstanding game this month, showing a clean pair of heels to the rest of the games – you can't afford to miss it. It's *Head over Heels* by Jon Ritman and Bernie Drummond, the authors of *Batman*. It stars two tremendous new characters in an even more complicated arcade adventure than its predecessor.

Somehow the programmers have managed to double the number of locations, while keeping the graphics as superb as ever. Endless variety and lots of depth are also guaranteed. Needless to say it's the Mastergame, so flick to those pages for the full details, some great full-colour screenshots and even a helping hand.

Mercenary makes a crash-landing this month, the expected AA Rave awarded being well earned. It's big, it's complex, it's got great graphics and it's in glorious colour. We've even got a great competition on page 76 to win a compact-disk player just by recognising some buildings in the game.

Pulsator is an original combination of shoot-em-up and puzzling that will keep both your joystick and your brain busy. You control a sphere in an abstract landscape of gateways, mazes and rooms, filled with hostile spheres and useful objects. Delightful gameplay hallmarks the game as something special.

Finally come two fast-action games that will stretch your reactions to the limit. *Shockway Rider* from FTL is a futuristic nightmare set on scrolling walkways. *Sigma 7* from Durell is a three-stage shoot-em-up, munch-it-up, puzzl-it-up (*that's enough ups – Ed*) that starts off easy but gets maniacally tough at the end.

Hey, you. Don't read that, read this. This is the heavy, heavy gamer's read. The nuttiest read around. One review beyond. (Cue music, roll titles, read reviews.)



PULSATOR

Martech, £8.95 cass, £14.95 disk, keyboard or joystick

Pulsator is a arcade puzzle game designed and programmed by Softeam. The game is composed of many "flick" screens that add to the puzzling nature of the action because you can't see the whole game area at once and have to map things out.

There are five levels through which you must go, rescuing the baby pulsator or pulsy on each level. Along the way, you must travel through as many of the 49 rooms on each level as necessary to get the key which opens the door to the pulsy. After rescuing the pulsy you must find the exit to the next level.

If you think that's easy, you're right! But there's more. Along the way, you must shoot enemy robots, who drain your energy with varying intensity. Also, doors block the path to various parts of the five-level complex of 49 rooms. These doors are numbered from one to six, and can be opened or shut only by passing over one of its number pads. This adds a new, more adventurous dimension to the game. They are arranged in confusing mazes and can send you round in circles for ages trying to work them out.

There are a lot of different characters in the game – some good, most of them bad. The Protectron will give you a protective glow for about two minutes when you touch it. You can then kill the baddies just by touching them. There is only one Protectron per level, so don't accidentally shoot it! Unfortunately, it's difficult to know whether or not you actually shot it because the visual effect of the protective glow is slight. Invariably you won't realise you have the glow until the warning sounds to tell you that it's about to wear off!

SECOND OPINION

I loved this game because it combines great arcade graphics and action with some wicked puzzling. You'll need plenty of logical thought and a penchant for blasting too. I don't share Chris's frustrations with the game; I found they just drove me on to find the answer and try to complete the level. Very original game and gameplay that will test you for a long time. **BW**

GREEN SCREEN VIEW

All features visible.

The Thiefrox is the worst of the baddies. He cannot be killed by your protective glow, and, in character with his name, he will steal a key from you if you are carrying one.

Gun ga Dis is the most common one and the most infuriating. When he touches you, he temporarily disables your gun for a seemingly infinite time. It will take several shots to get rid of him.

Resurrectron will come back to life after you have shot him. In his second life, he is indestructible and will kill you on contact.

Some of the other items are useful or a pain in the back ... of your neck? Picking up the skull and crossbones will temporarily stun all the robots. Be careful of the questionmark: it is really annoying. Softeam says, "Have fun with it!" Pah! It reverses the horizontal actions, so pushing left makes you go right and vice-versa. This would not be so bad if they hadn't placed the questionmarks next to force-field squares which kill you on contact, and the reversal lasts forever! Yawn.

Passing over an oildrum will replenish your power level. Collecting three will give you an extra life! Wow!

Another good and annoying feature is the transporter units littered throughout the complex. Touching one will immediately send you to its respective reception thingy. This can be good at times, especially when trying to set specific gates, but can also cause havoc. On one level I had to keep aborting the game because I got into a rut and couldn't see my way out because of these |&*!%!$ transporters. Ho-hum.

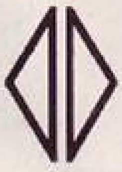
Pulsator has many good features, good graphics and soundeffects. The game is very complex and taxing. I played it for many hours. It is easy to get into, and for once you feel a great sense of achievement when you escape from a level.

For the ardent arcade-adventurist, this game is a must: very mappable and very addictive. However, for me this game suffers real stayability problems. I tend to get frustrated pretty quickly when ruts occur. That's what makes writing a review about it such a pleasure. I spent an hour or two caught between two transporters and a couple of one-way signs, culminating in unmentionable words and a rapid power-off.

Altogether a good game, worth getting and of definite appeal to most people. **CB**

FIRST-DAY TARGET SCORE
30,000

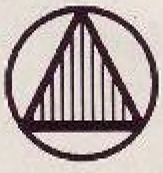
Object identification



Protectron: gives invulnerability when touched for about two minutes. You can kill baddies just by bumping into them.



Thiefrox: removes a key if you're carrying one and can't be killed when you are otherwise invulnerable.



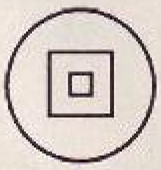
Gun ga Dis: temporarily disables gun and has to be shot seven times.



Resurrectron: comes back to life after being shot and is then indestructable.



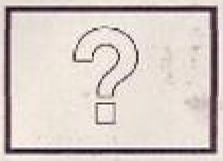
Key: releases the baby pulsator on each level.



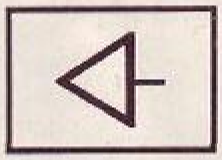
Baby pulsator: the poor little mite is always trapped behind a door and makes a crying sound.



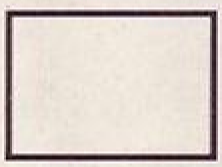
Skull and crossbones: temporarily stuns the robots.



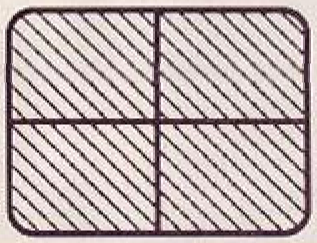
Question-mark: reverses the controls.



One-way paths: you can't go the other way.



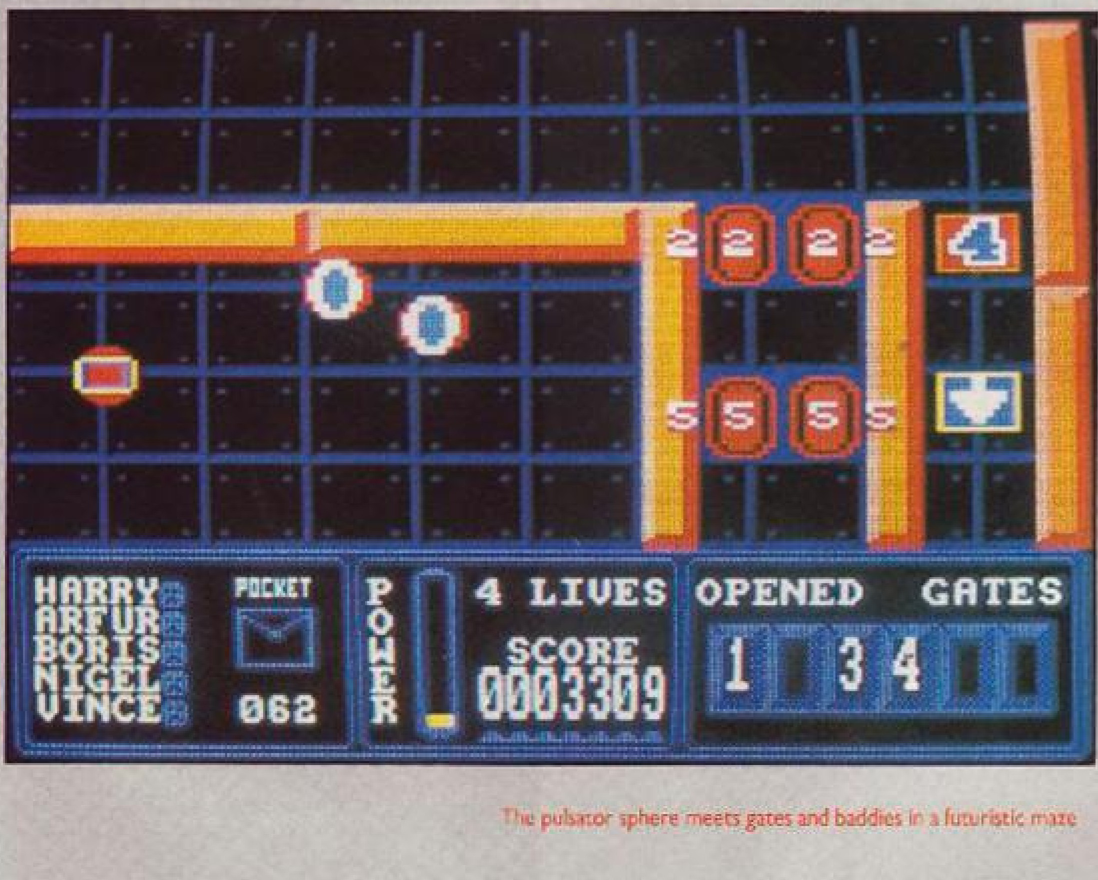
Transporter: useful for rapid movement, but depends on the state of the gates. You might end up confusing or trapping yourself.



Exit: once you've released the baby pulsator this will take you to the next level.



Where's the baby pulsator? Can you hear its cries for help?



The pulsator sphere meets gates and baddies in a futuristic maze

The Verdict

GRAPHICS 76%
- ☐ Fast screen-flipping.
- ☐ Great design for screens, characters.
- ■ Dull, earthy colours.

SONICS 43%
- ■ Sound-effects lack oomph.

GRAB FACTOR 85%
- ☐ Problems hook you immediately.
- ☐ Each level harder and more puzzling.

STAYING POWER 86%
- ☐ Five extensive complexes to search.
- ■ Those easily frustrated will sour from this game.

AA RATING 84%
- ☐ Very original.
- ☐ Good combination of arcade and puzzling, blasting and gates.

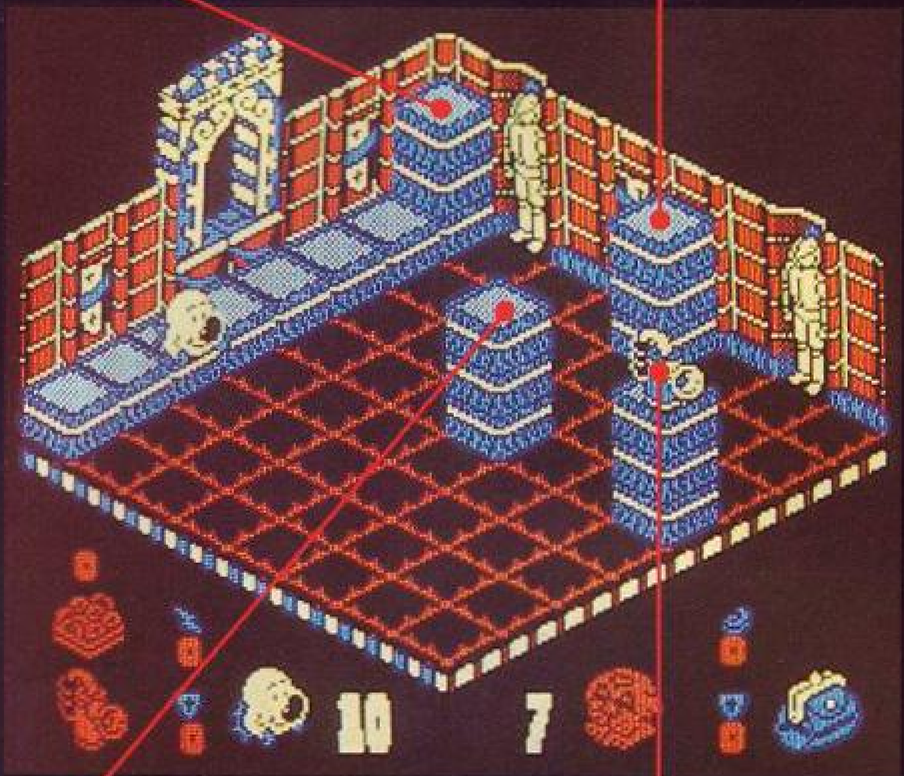
HEAD OVER HEELS

Ocean, £8.95 cass, £14.95 disk, joystick or keys

Head gets the hooter

1 Jump Head onto the top of this pile. Move out to the edge of the block.

2 Jump to here but jump and turn immediately, since the block disappears when you hit it.



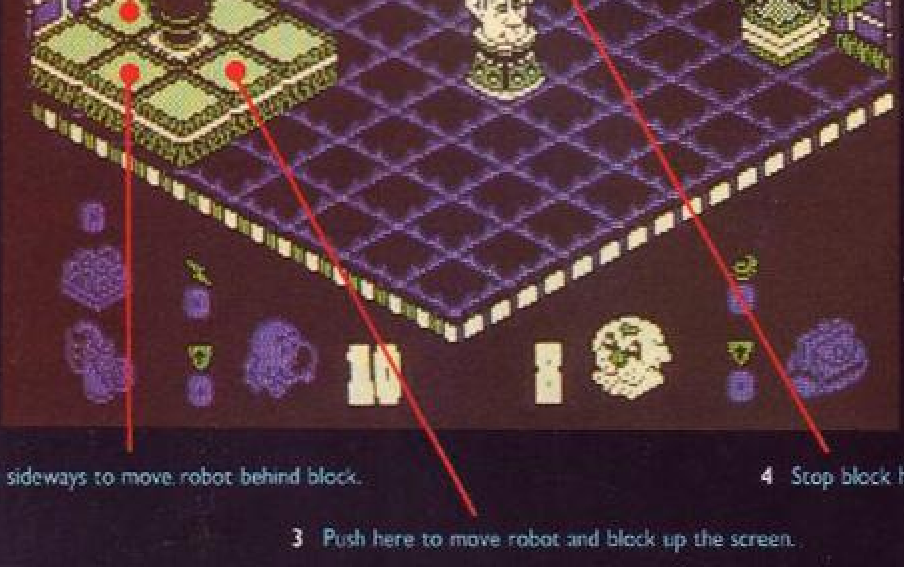
3 Jump to here, where the block also disappears when touched – so you need to jump and turn immediately to reach the hooter

4 Jump straight back toward the door, jumping off the remaining blocks in the middle of the room.

Heels gets the bag

1 Move to here and walk against the knob. This controls the robot and moves it to the back of the screen.

5 Move Heels to here, jump on block, bump robot forward slightly, jump on robot, jump on conveyor and get bag.



2 Push sideways to move robot behind block.

4 Stop block here.

3 Push here to move robot and block up the screen.

Jon Ritman and Bernie Drummond are without doubt the masters of Amstrad arcade adventures. First they produced *Batman*, the biggest breakthrough in 3D arcade adventures since *Knight Lore*, and now comes a new dynamic duo, Head and Heels. They are the characters in *Head over Heels*, which has twice as many locations as *Batman*, many original features, and gameplay even more devastatingly addictive.

The game is set in the Blacktooth Empire. Head and his partner Heels are two spies from neighbouring star systems. They are trying to destroy the tyrannical Blacktooth rulers, but have been imprisoned. Your task is to guide them to escape and find the crowns of the five worlds in the Blacktooth Empire, which will spark off a revolution.

Searching for the five crowns is similar to trying to get the seven pieces of the Batmobile in *Batman*. But the game is a good deal tougher because of twice as many rooms, many more puzzles and the complication of having two characters to control.

Head and Heels are the key element that prevents this being *Batman II*. They are cute little things, Head having a big hooter nose and Heels looking like a dog. You control them both and can switch to the other at any time. Head is able to jump quite high but walks slowly; Heels moves faster but can't jump far. Head also has stubby wings, allowing him to move while he falls.

At the start of the game you have to find crucial objects. Head has to get a hooter and Heels a bag. With the hooter Head can shoot doughnuts, which also have to be picked up, and with the bag Heels can carry objects. Doughnuts are limited in supply but very useful weapons for freezing the nasty moving dangers that you face.

SECOND OPINION

What a tremendous game! The graphics are superbly designed, the characters perfectly animated, the gameplay so addictive you'll never want to switch off. There is plenty of variety and an abundance of humour. Head Over Heels *is set to become a classic.* **RpM**

GREEN SCREEN VIEW

Screens look stunning even in green.

The early screens contain a few fundamental tests that will get you into the action. Head has to learn how to climb ladders – a crucial skill – and the game will spring the first of its many surprises. You'll need to tread carefully wherever you are: Ritman and Drummond know just when to catch you unaware with a sneaky trap.

Before long you'll get both characters out into a marketplace where they can meet. Once together Head and Heels can do something amazing. Just jump Head onto Heels and they combine to make a single unit. You now have the skills of both of them: speed, large jumps, carrying and shooting.

You'd think there would be no reason to

Blacktooth tourist guide

Blacktooth: a castle surrounded by a market. The only way out is to teleport to one of three lunar bases and from there to the four other planets.
Egyptus: just like an emperor's pyramid tomb and just as hard to explore.
Penitentiary: the oppressive prison planet that contains the infamous Pit – don't get stuck here whatever you do.
Safari: native traps lie in wait everywhere.
Book World: there's not a lot to read – you'll be too busy dying anyway.
Doughnuts: collected in trays of six. Can be fired only by Head and disable any nasties they hit.
Teleports: link two locations or sometimes operate in a chain.
Springs: give extra jump height and can be carried as well.
Switches: turn dangers on and off, both moving and static.
Conveyor belts: roll you along. You'll have to jump if you want to go where they don't want you to.
Reincarnation fish: Eat the moving ones and you can return to that point when the current game has ended. The still ones are deadly.
Cuddly stuffed white bunnies: give extra speed, jump, lives or invulnerability.
Hush puppies: can be jumped on by Head but disappear at the sight of Head.

MASTER GAME

break this formidable partnership apart. The programmers have concocted a harder game than that. On a ladder, Head has to go it alone. Heels, on the other hand, is the only one that can use "Hush Puppies". These dogs that never move are quite happy to let Heels leap all over them like a staircase, but the trouble is they disappear at the sight of Head. Other obstacles to Head and Heels as a pair will require a variety of skills and combinations. Sometimes a character will have to go it alone; in other situations they will have to be combined; and to complete tasks in some rooms you'll even have to alternate between them. This is the essence of the game and tests your powers of logic, imagination and the ability to get inside the warped minds of the programmers.

After more exploration you will discover the teleport terminals that take you to the four other worlds. Each is large and has a theme represented in the graphics: Egyptus, Penitentiary, Safari and Book World. You have to find a crown on each of them before returning to get the final crown on Blacktooth. The planets are where you'll encounter the toughest puzzles that will test you to the limit.

The graphics are even more stunning than *Batman*. There's tremendous variety, plenty of great colour schemes, attention to every detail – and humour. Musical ditties pop up all the time and there are many jolly sound-effects.

Throughout the game are many enjoyable features that provide both variety and humour to the action. Cuddly stuffed white rabbits give extra lives, extra speed, extra jump or invulnerability. Reincarnation fish allow you to restart in a position after dying. And there are also teleports, springs, switches and conveyor belts.

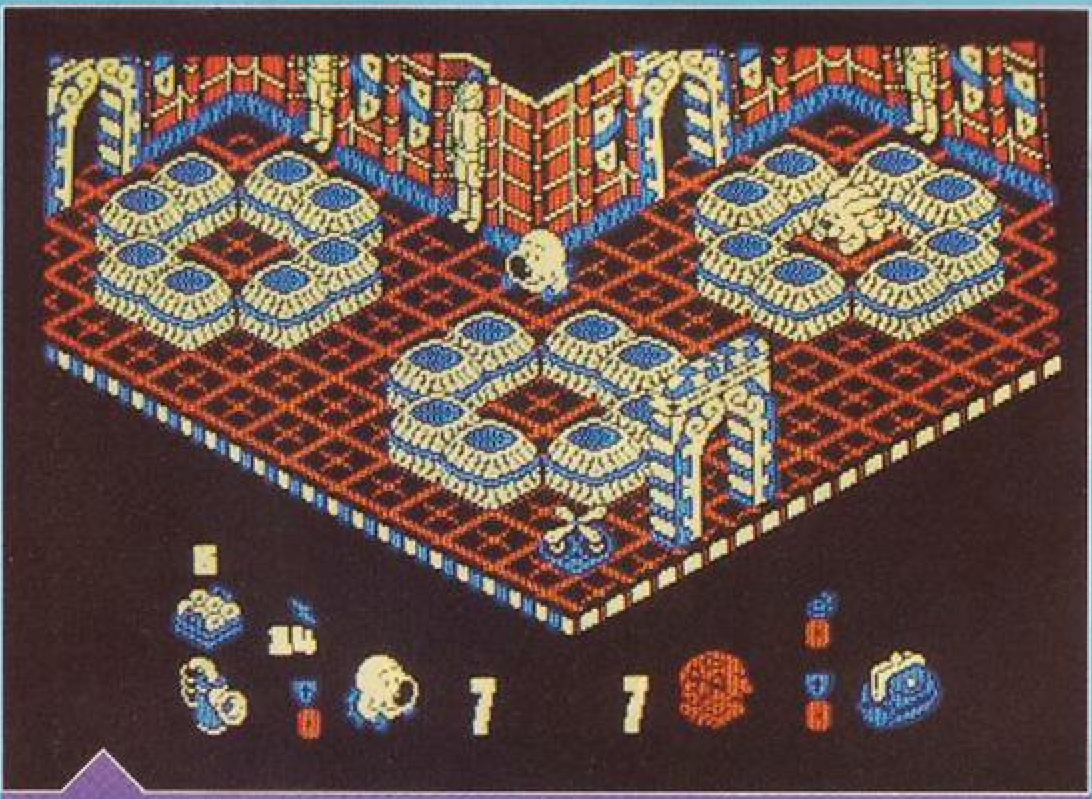
There's an unhealthy dose of dangers as well. They range from the static but deadly through the random movers and the patterned movers to those that home in on you. Getting around is done by walking, jumping, teleporting, using lifting platforms and by letting others take the strain too.



Heels is threatened by two deadly robots

Despite the similarities to *Batman* I really can't praise the game highly enough. It's so easy to start playing and you just can't put it down as you discover new features, new rooms and puzzles that you just *have* to solve. The 300-odd locations will take a lot more exploring and solving than *Batman*. I defy you not to love this game. **BW**

FIRST-DAY TARGET SCORE
10,000



The screen is filled with three rooms, and there is a cuddly bunny for Head to collect

The Verdict

GRAPHICS 96%
- Excellent attention to detail and colour.
- Great characters, animation and effects.

SONICS 68%
- Good ditties throughout game.

GRAB FACTOR 95%
- Easy puzzles to get you started.
- Fun characters and combination feature.

STAYING POWER 96%
- Over 300 rooms.
- Some extremely devious and testing puzzles.
- Enormous variety.

AA RATING 95%
- Obviously similar to *Batman*, but you can't call that bad news, and it's packed with originality anyway. Nuff said.

CLASSIC MUNCHER

Bubble Bus, £1.99 cass, £9.95 disk, joystick or keys

Classic Muncher is the most recent of the clones to hit the market. As you might have guessed, this is a version of *Pacman*.

As with the arcade version of *Pacman*, you steer a little muncher around a measly screen. Around and around your little muncher hurries. Suddenly nasty after nasty jumps out from a box device in the middle of the screen. Of course in such instances you just head straight for the power pills, one in each corner. This makes the nasties glow and flash, letting you catch them and tear their delicate legs off one by one, delighting in your show of delinquency, causing delirium as they deliquesce in your muncher's stomach. However, your delusions of diabolism last but a few seconds: they soon bounce back from the central box. (*That's enough alliteration – Ed.*)

> **SECOND OPINION**
> *I don't really approve of rehashing old ideas time after time, but if you must have a Pacman clone, this is the one to go for. It's slickly produced and enjoyable to play. All clones should be priced like this one, leaving higher price brackets for original games.* **BW**
>
> **GREEN SCREEN VIEW**
> *Good clear munching.*

Exits on each screen let you go from one side of the screen to the other. Although this game is a clone, it is – I'm thankful – full of variation. Each screen is different. Fruit! As well as munching spots and nasties, you can feast upon the easy prey of fruit and letters, which appear like sitting ducks below the central box. Catch them quick: they don't stay there long. Subsequent screens have letters instead of fruit. If you eat each letter of the word *E X T R A*, you will get – surprise surprise – an extra muncher.

I liked this game very much, and the price is very reasonable to splash out. You might no longer have to fix up an appointment with the bank manager to arrange a short-term loan, or a second or third mortgage. **CB**

The Verdict

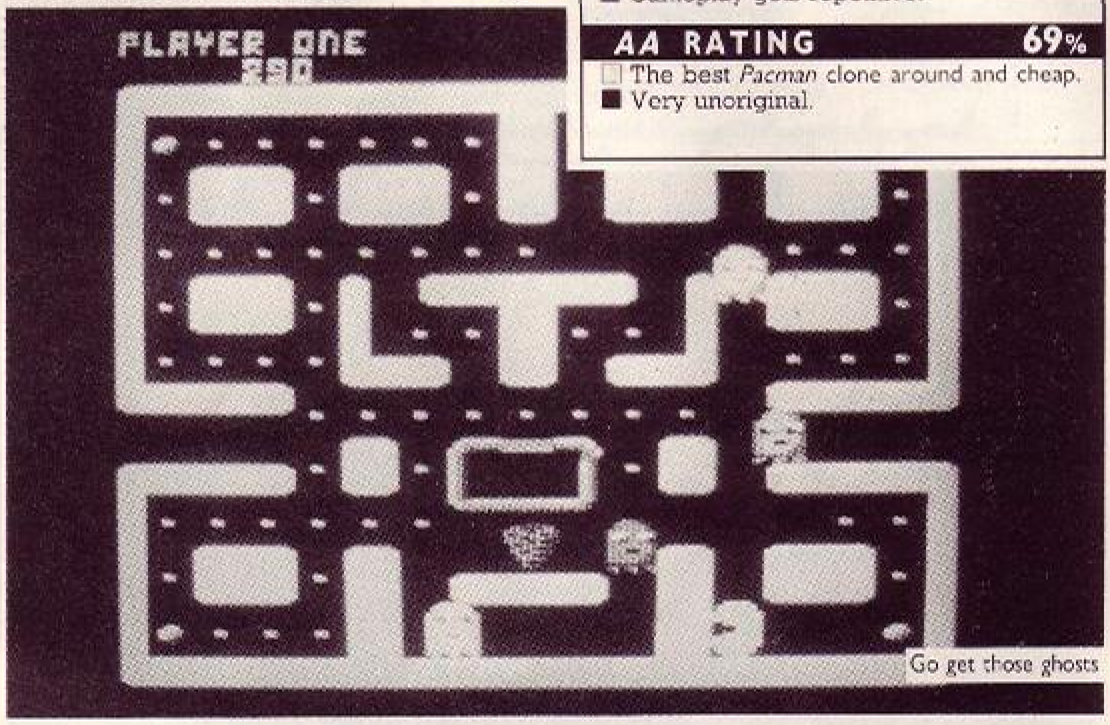
GRAPHICS 71%
□ Very good, clear characters.
□ Good choice of colour schemes.

SONICS 57%
□ Standard but good, with very nice music.

GRAB FACTOR 67%
□ Has all the initial addiction of the arcade game.
■ You may be fed up with *Pacman* clones.

STAYING POWER 60%
□ The variations on each level make the game much more interesting.
■ Gameplay gets repetitive.

AA RATING 69%
□ The best *Pacman* clone around and cheap.
■ Very unoriginal.



Go get those ghosts

THE AMAZING SHRINKING MAN

Infogrames, £9.95 cass, £14.95 disk, joystick or keys

The Amazing Shrinking Man is one of the new games from one of the many French software houses. There is a funny sort of quirky plus to this game in that you can choose which language the messages appear in: Spanish, French, German or English.

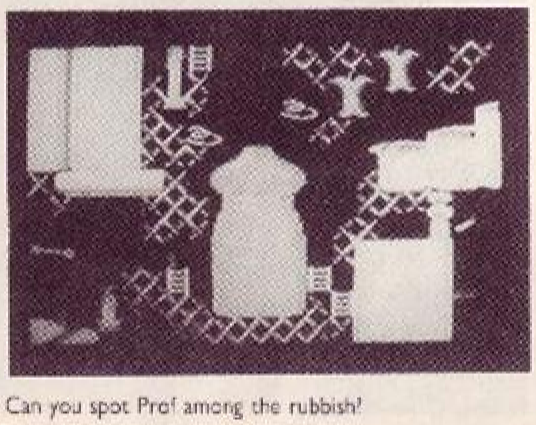
You play Professor Nitro, who accidentally drank some of his recently invented formula for reducing cells. Almost at once, he shrank so small that he fell into the waste-basket next to his desk. This is where you come in.

The object of the first part of the game is to collect all the sheets of paper which make up the formula. You must climb ladders – in a bin? – and other objects, while trying to avoid flies, ants, chewing-gum and deadly drops of acid. Scattered around the bin are bags containing useful items to help you complete your task and to defend against your enemies.

In the second part, the laboratory, you must stick all the different pieces of paper onto a blackboard. You need light, which must be switched on. That, however, is not all. You must find a soultion to dilute the invisible ink which covers the formula. Only then the ingredients of the formula appear. These must be found and mixed in the correct order and quantity. To mix them, you must put them in a funnel and turn the tap on. Having done that, you must turn on the Bunsen burner and go to the mouth of the container so that the prof can drink the antidote.

> **SECOND OPINION**
> *I was very taken with the graphics, which are different from any I've encountered before. The gameplay is also quite original, a sort of platform game with less order to it. You'll enjoy exploring the environment but get frustrated with it the more you play. Definitely worth a look but won't appeal to all.* **BW**
>
> **GREEN SCREEN VIEW**
> *Clear, green rubbish-bin.*

The Amazing Shrinking Man is definitely an arcade game, though until you play it you might think it an arcade adventure. Believe me, there's no adventure. Unfortunate really, because the graphics are pretty spectacular but the game lacks overall playability. I found the bin too crowded and difficult to move about in, mainly because the movement is too fast. **CB**


Can you spot Prof among the rubbish?

FIRST-DAY TARGET SCORE
Collect 10 pieces of the formula.

The Verdict

GRAPHICS 71%
□ Excellent depiction of the rubbish in the bin.
□ Smooth scrolling between the six screens of part one.

SONICS 57%
□ Very good and variant musique électronique.

GRAB FACTOR 69%
□ The plot and graphics encourage investigation.
■ Inescapable spots force suicide.

STAYING POWER 66%
□ Two difficult parts to the game.
■ Difficult control gets harder the further you go.

AA RATING 68%
□ Another highly original import.

GRANGE HILL

Argus Press, £9.95 cass, joystick or keys

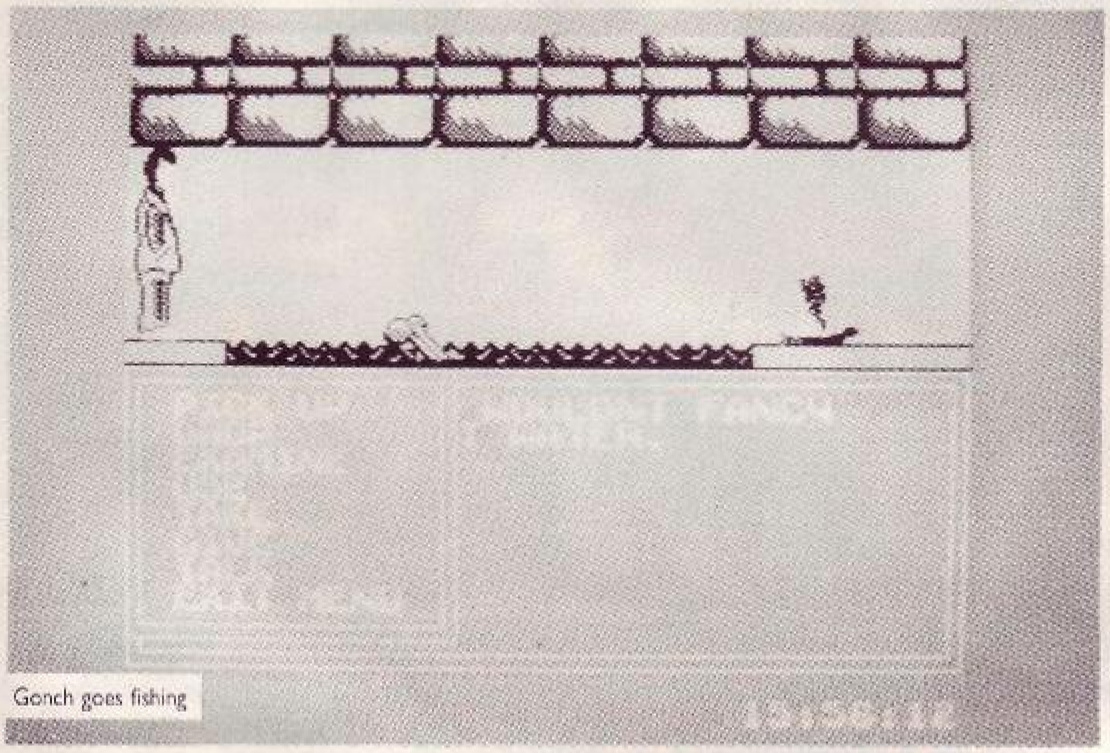
Those shining examples of our British youth (shurely shome mishtake?) have made it into binary and pixels. The game is based on the book *Grange Hill After Hours*. You play Gonch, who has to break into the school to retrieve his personal stereo from the staff room. It's an arcade adventure with a nifty window-menu system.

You begin near your home, in the company of Hollo, who can be persuaded to accompany you on your trip. The screens are viewed in 2D and have large, well-animated characters. At the bottom of the screen is a window in which location descriptions, conversations and other menus will appear.

You'll find lots of objects within the game, some useful, some not. You can manipulate these in a number of ways: pick up, drop, examine, use, take and give. There's also an option to talk. You can talk to several characters including Hollo, a pusher and the school caretaker. Getting them to do what you want isn't easy.

As well as the adventure element there's climbing and jumping around to do. You've got to get the stereo and return home within the time limit. Besides the time limit, other dangers can abruptly end the game. You certainly don't want to go home without the stereo or you'll get an earful from mother.

The adventure element is well thought out. It's a pleasure to use the window-menu system, although having intelligent and productive conversations isn't easy. The graphics are very blue, which becomes rather tedious – a bit more colour would have been appreciated. An easy game to get into and a good challenge to complete. **BW**



Gonch goes fishing

FIRST-DAY TARGET SCORE
Get into the school.

SECOND OPINION

First glances at this game can be rather misleading: it looks dull, drab and not worth the dough you paid for it. If you haven't been put off at this point, sit down. Have a go. There is much puzzling throughout which is enjoyable. Grange Hill can be thought of as an adventure game with un-ironed graphics – rough around the edges. Fun if clue-hunting takes your fancy. **RpM**

GREEN SCREEN VIEW

The transition to green is a happy one.

The Verdict

GRAPHICS 52%
□ Large, well animated characters.
■ Blue, blue and more b****y blue.

SONICS 58%
□ Reasonable version of *Grange Hill* theme.

GRAB FACTOR 65%
□ Easy window system to use.
■ A dull, uninteresting beginning.

STAYING POWER 78%
□ Lots of objects to find and use.
□ Tricky puzzles: it's not easy.

***AA* RATING** 74%
□ Good game of the TV series of the book.

UCHI-MATA

Martech, £9.95 cass, £13.95 disk, joystick or keys

Uchi-mata is a combat simulation of judo practice. This is in no way a game for martial-art game freaks, but is aimed more at past and present judo freaks.

The main part of the game is practice. This helps you to repeat throws and discover new ones. The instructions clearly show you how to do the standard throws, like *tomoe-nage, o soto gari, uchi-mata* and *de ashi barai*.

What I like most about this game is that its throws are as difficult as those in real judo. I know because I did judo for a while – so there!

After practising, feeling that you are now capable of a full fight, you can challenge an opponent, in an attempt to work your way up from white to 10th dan. You face your opponent and gingerly step toward him. The faster you grab his *judogi*, the better a grip you will get. This proves to be very important. As in proper judo, throws are awarded: *ippon, waza-ari, yuko*, and *koka*, depending on the success of the throw – that is, how much of your opponent's back hits the mat. Of course if you do an illegal move, you can be penalised by varying degrees from *keikoku chui shido* to *hansoku make* (disqualification).

I like this game very much, though I admit that I am speaking from a biased point of view, as an ex-judoist. However, I think anyone would appreciate the smooth animation and the clarity with which the throws are represented. This is almost good enough to make this program a good training guide for low belt-grades.

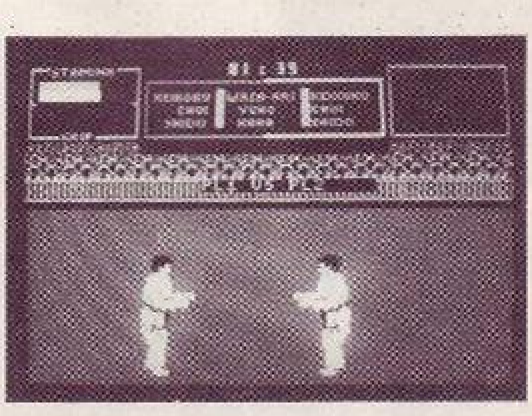
Sound is not too bad, but it is unfair to expect good sound in such a simulation. **CB**

SECOND OPINION

Not being a judo fan it took me a while to get into the action. It's quite enjoyable once you know what you're doing but will still appeal most to the judo enthusiast: for the rest of us, combat games have been done to death. A pity about the flickery animation, but the graphics are still good. **BW**

GREEN SCREEN VIEW

No difficulty playing.



Squaring up for combat

FIRST-DAY TARGET SCORE
Become competent at the basic throws through practice.

The Verdict

GRAPHICS 61%
□ Good depiction of characters and throws.
■ Animation is flickery.

SONICS 18%
■ Just a few effects.

GRAB FACTOR 62%
□ Lots of different moves to learn.
■ If you haven't done judo it's complicated.

STAYING POWER 70%
□ It takes a lot of practice to get good and find new moves.
■ Won't hold interest for non-judo fans.

***AA* RATING** 65%
□ Good introductory instructions.

SUPER CYCLE

US Gold, £9.99 cass, £14.99 disk, joystick or keys

The recent glut of motorcycle and other racing games should have quenched the desires of any speed freaks. This latest one is competently put together. Don't expect an exact copy of the arcade game – you won't get one. What you will get is some exciting racing.

The concept is fairly simple: race down a course and complete it within the time limit. The courses vary in nature. One is totally straight; others are exceptionally twisty. The time limit depends on which of the three skill levels you choose, but it's usually tough.

The bike you drive has three gears; you'll spend nearly all the time in top. Two computer bikes line up against you at the start and these will keep popping up as you drive along, either in front or behind. One of these tries to balk you, increasingly as you progress through the 12 courses, the other usually following a straight path. You can bump the other bikes with a nice metallic clang. But catch them wrong and you'll end up with a bruised bum in the middle of the road.

The bike crash looks good and also occurs if you encounter an object on the side of the road. There are obstacles on the road too. These include crash-barriers, cones, puddles and ice, all of which can cause you time-wasting setbacks.

The roadway, bikes and crashes all look great, and what sound-effects there are complement the action well. The variety of tracks and increasing skill levels are pleasing and provide a challenge. It's an enjoyable game that should satisfy anyone with a hankering for hair-raising highways. **BW**

FIRST-DAY TARGET SCORE
25,000

SECOND OPINION

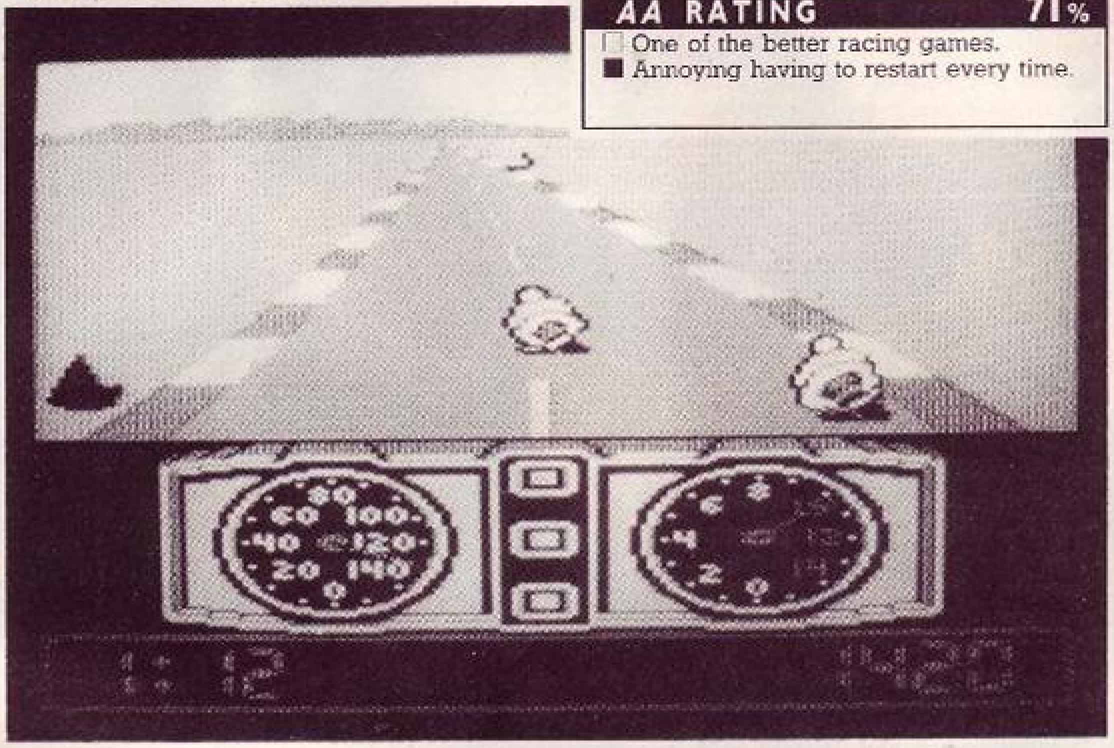
I must admit to being a sucker for these racing-type games. Ever since 3D Grand Prix has been out I have not left it alone; the speed and realism is enough to get my blood surging. Super Cycle is in a league of its own. Better than any that has gone before, certainly more addictive, and always leaving me wanting more.

RpM

GREEN SCREEN VIEW

You don't need to follow the white lines: all is clear.

Twist your wrist and head for the line



The Verdict

GRAPHICS 71%
- ☐ Smooth roadway and obstacles.
- ☐ Well depicted bikes and crashes.

SONICS 55%
- ☐ Nice bike-clashing effect.

GRAB FACTOR 73%
- ☐ Easy bike to control.
- ■ You may already have had your fill of race games.

STAYING POWER 70%
- ☐ Excellent variety of tracks.
- ☐ Increasing skill levels also provide challenge.

AA RATING 71%
- ☐ One of the better racing games.
- ■ Annoying having to restart every time.

TAPPER

Amsoft/Sega, £9.95 cass, £13.95 disk, joystick or keys

It's a long while since I played this game in the arcades, but the Amstrad conversion is finally here. It puts you in the role of a barman having to serve an ever-increasing number of customers. Any mistakes and you'll soon find the management booting you out – efficiency and speed are the name of the game.

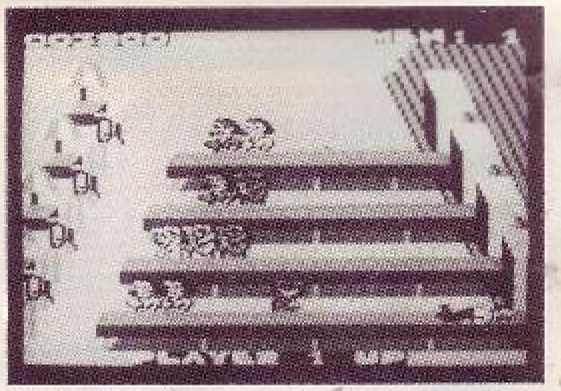
The screen shows four bars, perspective making the top one the shortest and the bottom one the longest. At the end of each bar is a doorway through which customers pour. You're at the other end of the bar where it's the drinks that have to be poured. You can move up and down between the bars and also run down them.

The aim is to force all the customers back out of the doors. Every time you throw a drink down the bar at them it forces them back – out out the door, you hope. They'll be back for more, though. If you don't get them out of the door they'll also return the empty glass, which you have to catch. Smash a glass and you've had it, so bunging a beer down an empty bar will also prove fatal.

If customers reach your end of the bar it will prove a bruising experience: they throw you down it like one of your beers. However, they will occasionally leave tips. Collect one of these and dancing girls will come on to take their minds off the booze, giving you a breathing space.

If you clear a bar you move on to one with more customers. On the later levels two bars will be the opposite way around to the usual, which can prove confusing. The clientele changes as well, from the western saloon and sports fans to the punk and space bars. In between bars is a bonus stage requiring sharp eyesight.

The graphics are delightful and the gameplay frantic. The problem is that the game is too slow until you practically clear the bar, and then it speeds up too much. Apart from this speed problem it's an enjoyable challenge. **BW**



Don't panic, it's just a bunch of punters after your blood Ulp!

SECOND OPINION

It is a surprise to see Tapper on the CPC. I would have thought Amsoft would have delighted in releasing it two years ago rather than leaving it this late. It's not a bad conversion from the arcade origional: others, you'll be pleased to know, have fared much worse. Chunky graphics which tend to slow down when there's a screenful of action spoil the fun somewhat. And seeing all that beer flying around makes one very thirsty! **RpM**

GREEN SCREEN VIEW

Causes the thirst glands to operate even in green.

FIRST-DAY TARGET SCORE
Get to sports bar.

The Verdict

GRAPHICS 73%
- ☐ Delightful characters in all bars.
- ■ Things really slow down with lots on screen.

SONICS 52%
- ☐ Pleasant tune throughout game.

GRAB FACTOR 76%
- ☐ Needs quick reactions and thinking.
- ☐ You can be fighting to complete a bar for a long time.

STAYING POWER 64%
- ☐ Bars get very tough indeed.
- ■ Slow speed at start of a bar is annoying.

AA RATING 69%
- ☐ A decent arcade conversion.



STRIKE FORCE COBRA

Piranha, £9.95 cass, £14.95 disk, joystick or keys

Strike Force Cobra is a snappy new game from Piranha, following the now-popular storyline of a madman in control of the fate of society as we know it.

An evil genius has captured scientists, and is forcing them to create a hacking system capable of controlling the world's most powerful defence computers. These scientists have been imprisoned by the enemy in a complex labyrinthine fortress. Each scientist knows the code to one of the doors which guard the massive computer room.

The world powers, faced with this slight problem, have formed an elite fighting group. You must choose which of these highly trained fighters you want to take part in this sensitive and dangerous mission. You can take only four of the eight possible members of the Cobra Force. They have various skills including jumping, diving, crouching and kicking.

Your team is provided with a Digital Lock Breaker for use when at the door of the computer room. Each member has a machine-gun and a supply of Electromagnetic Flux Grenades.

The game starts with each member of your team on the perimeter of the complex. You can control only one at a time. You can dive through windows or smash through certain doors to gain access to the fort. There are lifts to negotiate. These are like the doors in that some are always accessible, whereas others can be controlled only by Control Console. This must be activated to use the doors or lifts.

There is very little colour in this game, and much of the complex is hidden behind walls. Movement is slow, but well animated. Sound is tacky and lacking in excitement. However, it is a game with complex action and a difficult task. **CB**

FIRST-DAY TARGET SCORE
Get all four of the team into the complex.

SECOND OPINION

At first I wasn't too impressed with the game because of the disappointing graphics and the number of separate keyboard controls. However, as you get into things there are plenty of rooms to explore and puzzles to solve. I think more could have been made of the team element, but on the whole it's a competent enjoyable game. **BW**

GREEN SCREEN VIEW

Lack of colour makes it perfectly playable.

The Verdict

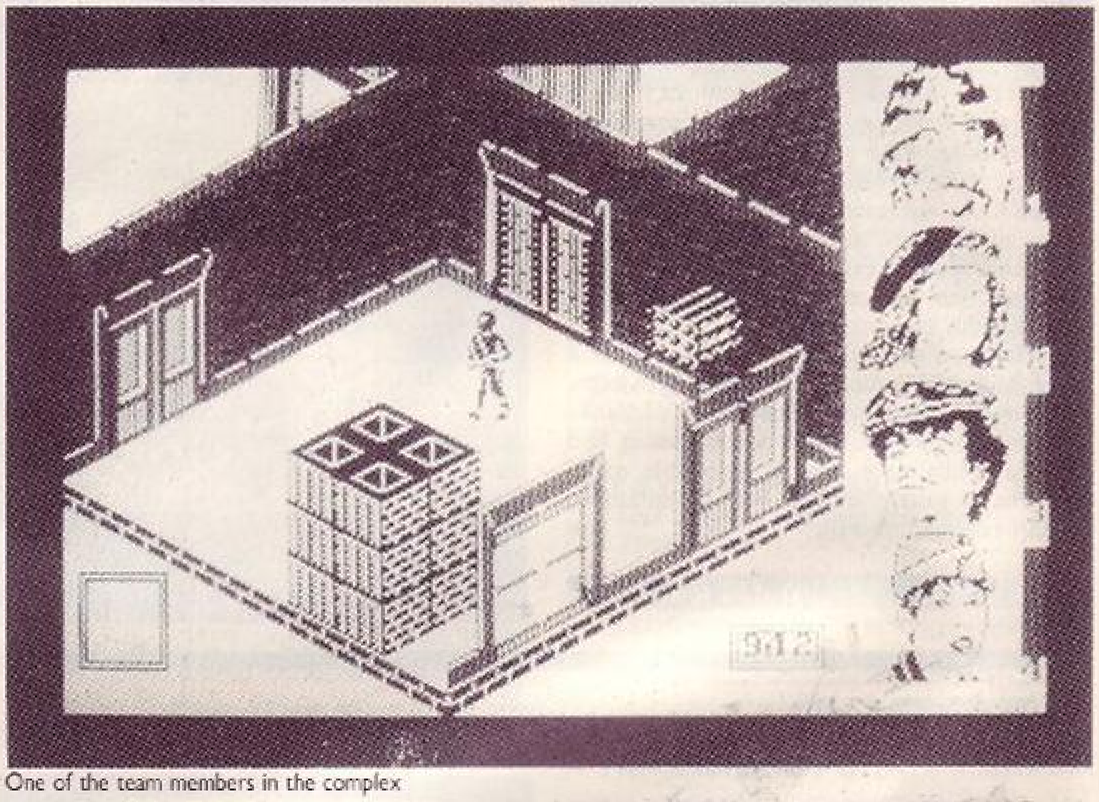
GRAPHICS 71%
□ An awful lot of different characters.
■ Lacking colour and variety.

SONICS 33%
■ Lifeless effects.

GRAB FACTOR 73%
□ Many initially accessible rooms to explore.
■ The controls aren't easy to grasp; you'll need lots of exploring.

STAYING POWER 77%
□ Large playing area.
□ The game unfolds well as you explore.

AA RATING 74%
□ A large, tough game with lots to do.



One of the team members in the complex

COBRA

Ocean, £8.95 cass, £14.95 disk, joystick or keys

Aaaaaggghhhhh!!! This game really infuriates me. It's an exceedingly poor copy of a game successful on other computers. It will annoy people who bought it either through ignorance of Ocean's incredibly varying standards or because of the film.

Anyway, now to the game. Marion Cobretti of the Zombie Squad must walk the streets to find and rescue model Ingrid Knutsen from an army of psychotic killers and the Night Slasher.

There are eight levels on the city's east side, through which you must battle to rescue Ingrid. The army of psychotic killers ranges from muggers and stabbers to a deranged headbutting duck.

Along the streets are ledges onto which you can jump. These are very useful when you pursue weapons with a greater destructive capability. When you kill a sniper, or blow up a booby-trapped window, a hamburger may appear. "Wow," I hear you gasp breathlessly. Well, yes, you might well say that, because if you pass in front of the window ledge on which the hamburger sits, you could get a weapon. (Fanfare.) The weapon you get could be either a knife, handgun, or machine-pistol.

Both graphics and sound are poor. All in all a very poxy game. **CB**

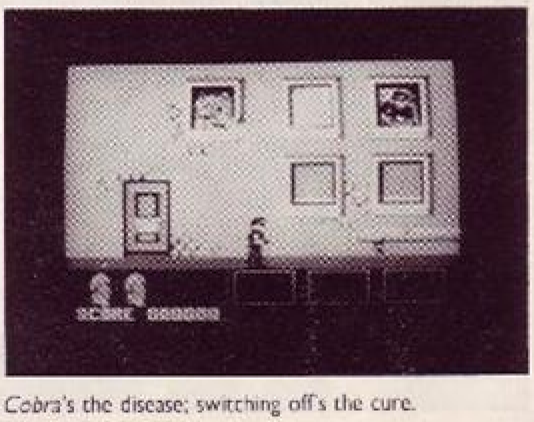
FIRST-DAY TARGET SCORE
Clear the first level.

SECOND OPINION

I wish Ocean wouldn't advertise games before they know what the conversion is going to be like. It means they're forced to release it, however bad it is, because people get just as annoyed if the game never comes out. It may make a few quid but it badly damages a reputation built on great games like Head over Heels *and* Short Circuit. *Needless to say I hated this. Avoid.* **BW**

GREEN SCREEN VIEW

Playable.



Cobra's the disease; switching off's the cure.

The Verdict

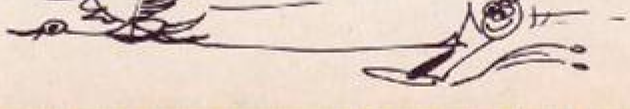
GRAPHICS 51%
□ Relatively smooth scrolling.
■ Unclear depiction of characters and jerky animation.

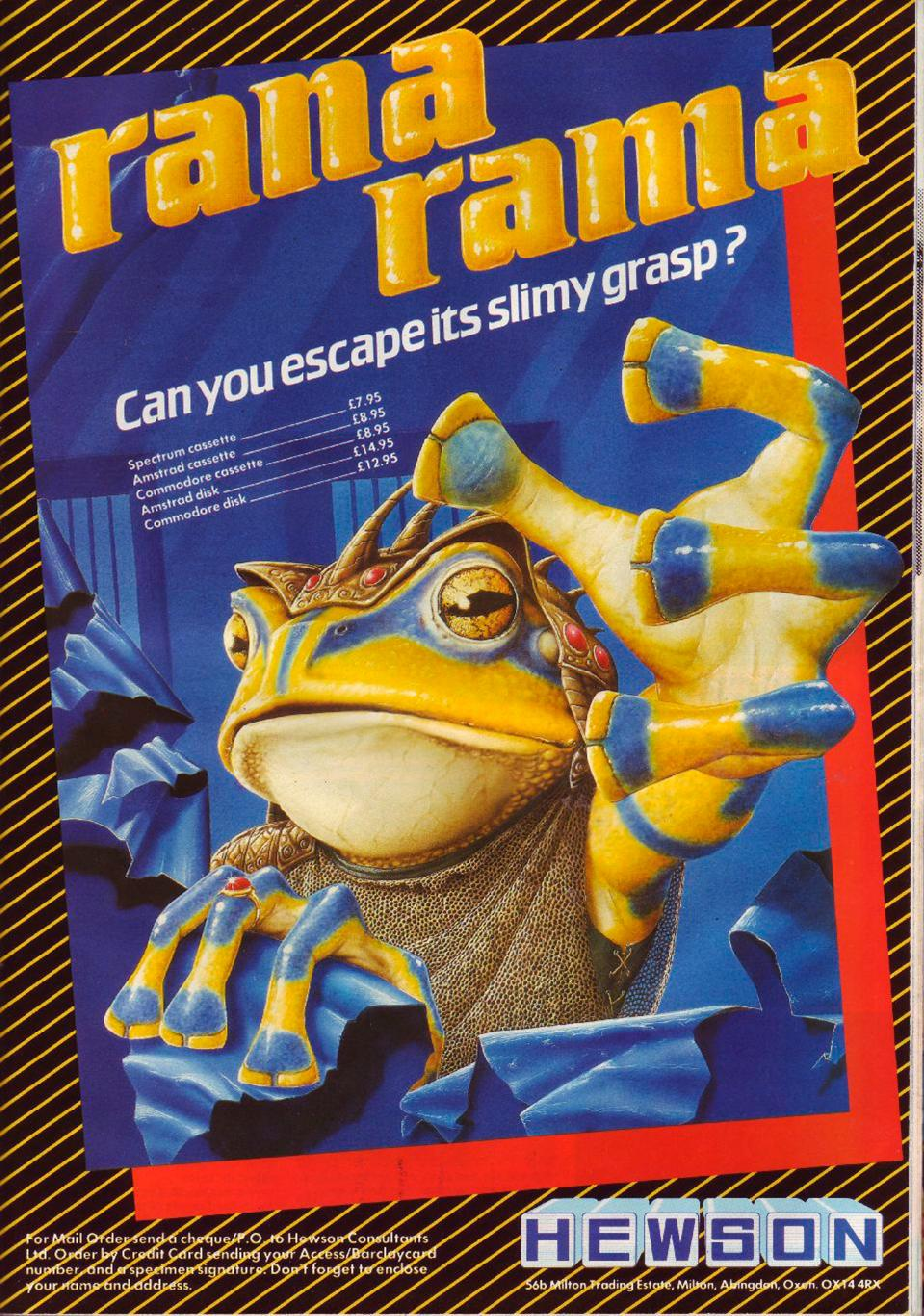
SONICS 35%
■ Boring and unimaginative.

GRAB FACTOR 34%
■ Repetitive gameplay: just fight and run.
■ Movement and annoying ducks make persistence hard.

STAYING POWER 28%
□ Eight levels to go through.
■ No distinguishable variation between levels.

AA RATING 30%
■ One of the worst game-of-the-films I've seen.





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SIGMA 7

Durell, £7.95 cass, £11.95 disk, joystick or keys

Durell is an independent software house with a good reputation that can only be added to by its latest release. It's another one from Mike Richardson, the author of *Thanatos* and *Turbo Esprit*. The game is completely different in style from his previous games featuring a three-stage arcade: shoot-em-up, collect-the-dots, and puzzle.

The game is split into 21 sections, three basic phases repeated seven times but getting harder each run. These are extremely easy at first. They become much more testing as you progress. The task in each of the three phases is completely different, and this variety is the key to the game's lasting appeal.

The first stage is a shoot-em-up similar to the arcade game *Zaxxon*. Your ship is launched, horribly slowly, from the bottom left of the screen and can move diagonally across that corner of the screen. Ships appear in waves of six and fly about the screen, while stars and planets scroll by from top right to bottom left. The ships come in many different attack patterns and don't shoot but try to crash into you.

You can shoot the ships with a laser and the explosions created are big, beautiful and noisy. Most ships will eventually disappear off-screen after a while but some will home in on you at the end of the wave and make dying a virtual inevitability. Losing your ship sends you back to the start of the whole phase. The number of attack waves increases as you go through the seven levels. But survive the phase and you go on to the next one.

This is a 3D version of *Pacman*. It's got the same view as the first phase: a long maze of pathways stretches off the screen to the top rigfht. You move a tank along these, picking up dots and trying to get to the exit several screens up to the right. On the pathways are never-ending moving robo-mines that you can shoot but that destroy you if you collide.

Somewhere in the layout of dots is a pattern that can't be removed and has to be remembered for the next phase. Within a time limit, you have to collect a certain number of dots to be able to exit the phase – the number increases with each level.

The third phase is a platform floating in space. On it you have to reproduce the pattern from the pathways of phase two. This is done by bouncing a sphere onto a grid at the right time and place, but avoiding a defence field that follows you around. This too has to be completed against a time limit.

AA RAVE

On completing each of the 21 phases you are awarded three bonus lives, so with a little practice you can amass many lives. This may not help, because the time limits in phases two and three are the real difficulty. They are quite tight on the higher levels. If one runs out the game ends, however many lives you have.

The explosions are the most impressive part of the game. In phase one you'll think the whole screen is being torn apart when you hit three or four ships in close succession. They're just as impressive in phase two but less frequent. The enemies on phases one and two alter with each new level and are well designed.

The first phase is just a shoot-em-up but quite gratifying. The second phase is the really tough one, needing quick reactions, great concentration and some forward planning. The third phase also needs sharp thought and reactions, plus a good memory for the pattern from phase two.

At first I thought the game was going to

SECOND OPINION

Three games in one package! Sounds too good to be true. All are colourful, furious and noisy. Sigma 7 *is enjoyable and has several nice touches: the explosions – there's nothing like them – and what is that odd noise the CPC emits while waiting for a keypress?* **RpM**

GREEN SCREEN VIEW

All three phases playable.

Ships attack in wav[...] and may even ho[...]

SHOCKWAY RIDER

FTL, £8.95 cass, £13.95 disk, keyboard or joystick

Shockway Rider is a futuristic game using high-speed walkways. FTL has made this futuristic racing game very realistic, as you will see.

Life is tough on the streets in the year 2012. The third and fourth world wars have come and gone, bequeathing a life of torture and havoc for the unfortunate survivors. No work – there's nothing to work for. Survival is the daily chore. Kids? Huh! Well, that's a different story.

All we have for amusing ourselves is the Shockway. A good idea for suburbia, but the slums don't need another tool of violence. We spend our days trying to go "full circle". This is the term for riding the Shockway through all eight districts it serves.

The first is the North Side, identified by a sign above it giving the quote of the century: "People Power". The North Side district encompasses 16 zones. The only available ammo is bricks, found in piles along the walkway. If you manage to hit 10 bystanders, you get a bonus life.

The second is The Scrubs, known as "Hug a Mugger" street. Surprisingly enough it's one of the only districts where the postman dares venture! Hit seven of his mailbags for an extra life. You have spheres for ammo, as useful as bricks but easier to carry. The Scrubs is 13 zones long.

Middle districts – East Park, Black Wall, Broad Way; "Krazy Land" to "Riders Rule" – get increasingly difficult. The penultimate level is "Skull Alley", or the West End. Chuck your bricks at the gangs, muggers and passers-by to gain extra points. Passing five of the last few of the remaining mailbags will gain an extra.

At last, the last leg: The Boulevard, "Duck or Die." Wow, dude, is this a tough patch! The onlookers throw stuff at you. Man, is it hard to dodge! Anyway, kill three of 'em and you get an extra life – very necessary here! Ammo is spheres again, and thankfully the district is a mere, tortuous 11 zones long.

The Shockway is a hell hole. As if trying to fight the muggers – with your bare hands, if there's no ammo about – isn't bad enough, there are an amazing number of insane, maniacal old men about who just love to drop bombs in your direction. And there's more.

The Shockway is constructed like a motorway, with three lanes of varying speed. The track next the far wall is the slowest, and, conversely, the track at the front of the screen is the fastest. Some sections of the Shockway contain speed traps, installed by the "Neighbourhood Watch" to try and stop our fun, in the form of hurdles. They are really awkward in that you can't jump or crouch under them; you've just got to get out of the way!

AA RAVE

Well, that's the storyline out of the way, now to some real conversation. If you get hit by any member of the gangs, or another user of the Shockway, your head gets chopped off and the muggers salute you by holding their arms up by their ears. Weird, eh? Ah well, each to his own. This also happens if you don't jump out of the way of a hurdle.

All in all, a very good game. Graphics are good, with very good depiction of detail. This tends to be the first thing I look at when thinking about the graphics. I feel that poor detail can ruin a potentially good game.

Sound is good, with a jazzy sort of music. There is an option to have either music or music and effects while you play the game. Although music during gameplay tends to drown the effects, the game seems too quiet without the music.

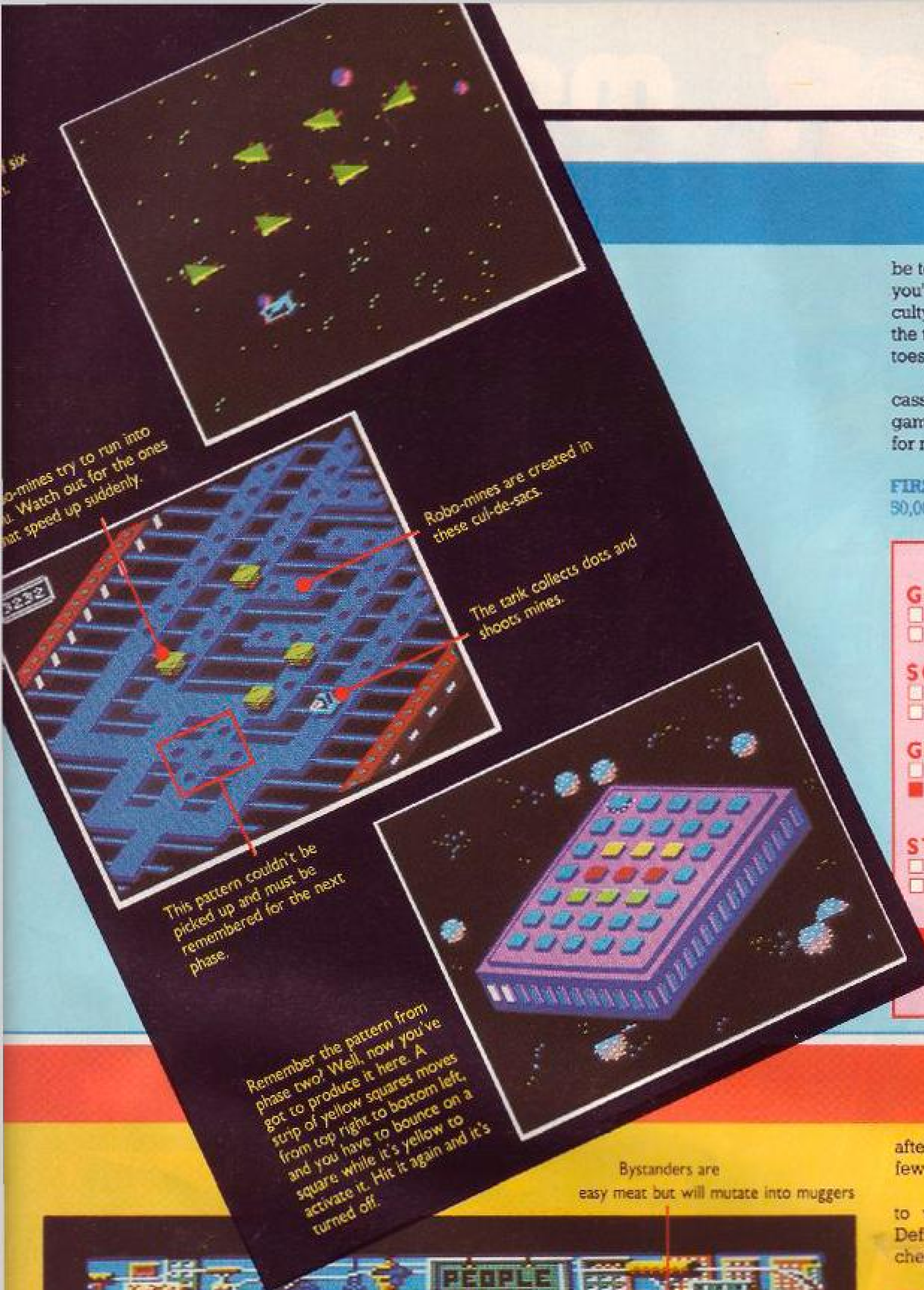
I'm thankful for the practice option, which can be used on any of the eight levels. But I wonder if these were a good idea, because

SECOND OPINION

I thought this was an excellent and original game that creates a good atmosphere. It's so easy to get into but actually perfecting the jumping-around and fighting isn't easy. You may find it lacks variety after a while but it will still present an enjoyable challenge. Love the head falling off. All the originality should make this another winner for FTL. **BW**

GREEN SCREEN VIEW

You can mug clearly in green too.



be too simple but as you get through the levels you're really hooked by the increasing difficulty. It is very tough to beat. The variety of the three phases will always keep you on your toes.

Also a round of applause for the free-cassette coupon that Durell includes with the game: it will get you any one of its other games for nothing. **BW**

FIRST-DAY TARGET SCORE
50,000

The Verdict

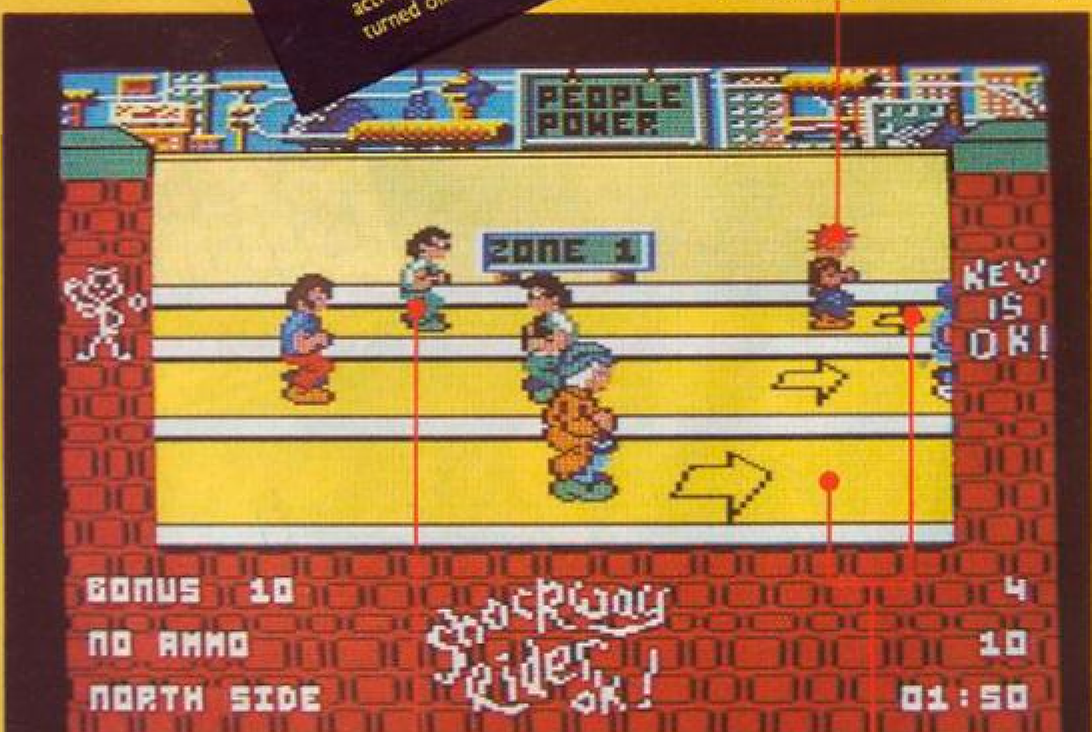
GRAPHICS 82%
- Fantastic explosions.
- Nicely designed sprites.

SONICS 75%
- Explosions sound good too.
- Good ditties but not very long.

GRAB FACTOR 85%
- Very easy to get into.
- Start-up sequence is slow and unnecessary.

STAYING POWER 82%
- Phases get very tough towards the end.
- Three different phases provide variety.

AA RATING 84%
- Excellent special offers with game.
- Overall, lacks originality.



Bystanders are easy meat but will mutate into muggers

Mugger after your head

The slow belt is at the back and the fast one at the front

after completing each level during practice a few times, I quite easily rode "full circle."

In conclusion, a very good game with little to whine about, but a lot to boast about. Definitely well worth getting. One of the cherished few! **CB**

FIRST-DAY TARGET SCORE
Get past level four without practice mode.

The Verdict

GRAPHICS 82%
- Very good, fast scrolling of each of the different-speed walkways.
- Lots of large, well-depicted geezers wot ride the shockway.

SONICS 71%
- Very nice title music and good sound-effects.

GRAB FACTOR 86%
- Practice mode helps to get going.
- Very addictive, trying to ride that bit further.
- Your bloke's reactions are sometimes slow.

STAYING POWER 80%
- Scope for battling against speed and score.
- A touch too easy to complete.

AA RATING 83%
- Original gameplay and use of walkways.


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BRIDE OF FRANKENSTEIN

Ariolasoft/39 Steps, £8.95 cass, £14.95 disk, joystick or keys

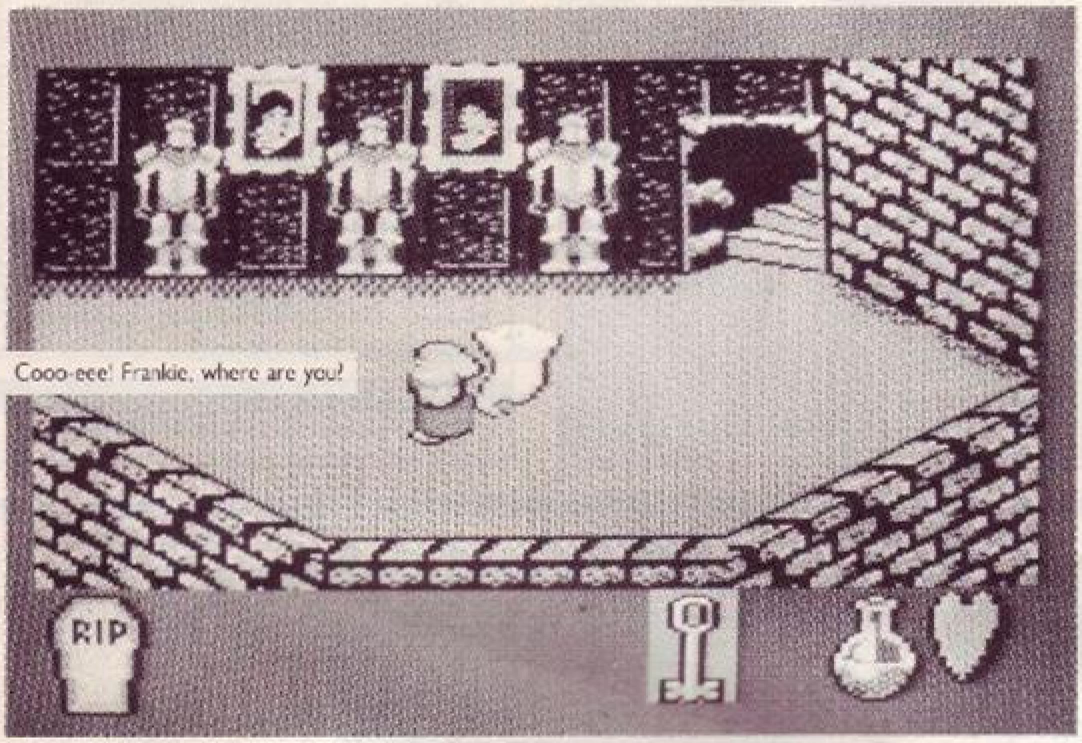
You'd think that any woman faced with the prospect of marrying Frankenstein would do her best to get out of it. Instead this barrel-shaped bride is so keen to get Frankie down the aisle that when he loses bits of himself she's even putting them back together again.

The bride may be barrel-shaped but she's got a lot going for her: a cute waddle walk that gets her around surprisingly fast and an awful lot of determination to get her man. The action takes place in 60 eerie locations including a castle, graveyards, crypts and laboratories. They're atmospherically drawn, combining well with the rotund heroine's sprite.

As you explore you'll run into the ghosts and skeletons that roam around. They attack you and send the heart-rate soaring until it bursts apart. Well, what can you expect if they install these discount spare parts? You'll also peg out if you run out of green fluid, which can be topped up at several spots in the castle.

Initially you've got to find some objects to help you in the quest. A pickaxe to fight things off and break things with. A lamp for darkened rooms. A spade for digging up graves. There are also seven keys which unlock different doors. Making a map and working out which keys work where will be your major lasting problem.

The bits of the body are found in several places. Just work out where you'd usually find bits of bodies. The gameplay is always frantic; you can only occasionally take a breather. I enjoyed it, because of the graphics and frantic action, but it lacked a little depth. Great fun though. **BW**



Cooo-eee! Frankie, where are you?

FIRST-DAY TARGET SCORE
Find a bit of the body.

SECOND OPINION
Large detailed sprites and colourful background graphics make this horror story seem less frightening. Indeed you may chuckle when you see Frankenstein's bride: she's plump and prone to the occasional waddle. Sixty screens of Frankie mayhem is enough for anyone. **RpM**

GREEN SCREEN VIEW
Looks just as good in green.

The Verdict

GRAPHICS 75%
- ☐ Lovely sprites for the bride and skeletons.
- ☐ Atmospheric, detailed locations.

SONICS 63%
- ☐ Good title tune.

GRAB FACTOR 74%
- ☐ Great fun exploring to start with.
- ☐ Love the graphics and humour.

STAYING POWER 62%
- ☐ Keys take some working out.
- ■ Not enough depth to it otherwise.

***AA* RATING** 70%
- ☐ Humour makes it better than other so-called horror games.

BALL BREAKER

CRL, £8.95 cass, £14.95 disk, joystick or keys

This is the first of a number of *Breakout* variants that are set to hit the streets soon. It has the novel distinction of being in 3D, which certainly adds a new dimension to the graphics as well as the gameplay.

The first thing you'll notice is a delightful loading screen with a lightning strike – very tasty. The graphics in the game are equally attractive. You view the field of play from one corner. You control a bat on the bottom right face of the square area. The blocks you have to destroy are all up to the left.

A ball appears and you have to keep it in play with the bat. It bounces off the indestructible walls and takes out the blocks in front of you. The ball moves at great pace: you need sharp reflexes and a good eye to keep it going. If a ball is lost another one will replace it, but you have only a limited number.

The blocks come in many different sizes and shapes. Some slow the ball down to make it more manageable. Others speed it up again, so don't get caught unaware by sudden speed changes. One particular type of block destroys all the others when hit. Others come alive when they hit the floor and make life very awkward.

You're armed with some missiles that can be used on troublesome blocks or creatures. Use them wisely: you don't get many. The graphics are delightful and the gameplay very testing. You'll be doing well to complete two screens but as you learn the screens' patterns you can get further. **BW**

SECOND OPINION
Ball Breaker *is a revamped* Breakout. *Everything has been given an special sparkle so you won't feel cheated when buying the game. The graphics, ball movement and perspective are stunning. A classic game with many improvements.* **RpM**

GREEN SCREEN VIEW
Some bricks can be hard to spot.


3D *Breakout* action

FIRST-DAY TARGET SCORE
Beat screen two.

The Verdict

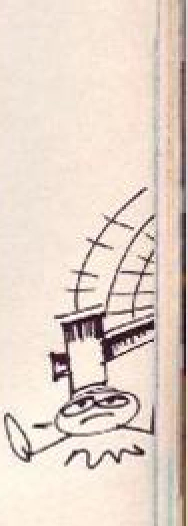
GRAPHICS 81%
- ☐ Superb 3D graphics.
- ☐ Good ball movement and explosions.

SONICS 75%
- ☐ Excellent tune plays throughout the game.

GRAB FACTOR 74%
- ☐ Great for *Breakout* fans.
- ☐ Variety of features to discover.
- ■ A bit too tough.

STAYING POWER 60%
- ☐ Plenty of very tough screens.
- ■ You keep having to repeat the early screens.

***AA* RATING** 69%
- ☐ Great loading and start-up sequences.
- ☐ Good variant of *Breakout*.



DRAGON'S LAIR

Software Projects, £8.95 cass, £14.95 disk, joystick or keys

Our review copy of *Dragon's Lair* must have been lost in the post for a couple of months, so we decided to review both it and its successor *Escape from Singe's Castle* at the same time. They're based on the first laser-disk game to appear in the arcades but obviously have the limitation of being on a home micro.



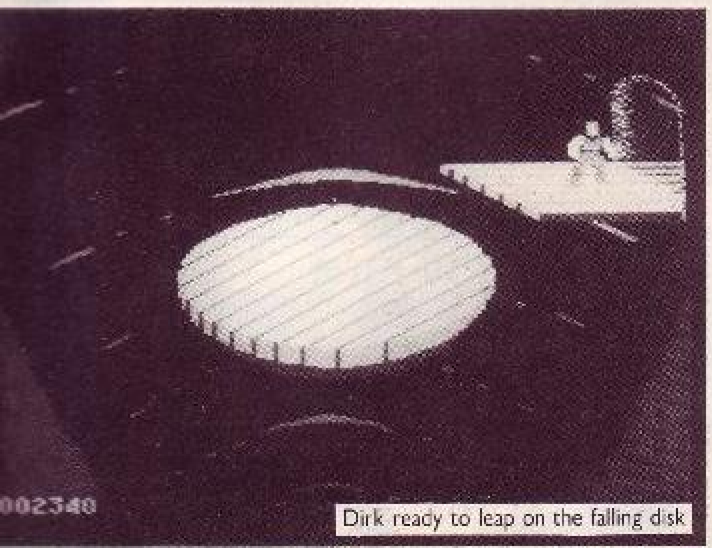
You play the part of Dirk the Daring, the only knight dumb enough to take on this suicide mission into the dragon's lair. There are nine separate stages, all extremely difficult. On the starting screen you leap between ramps on which killer kangaroos – oh all right, Giddy Goons then – are hopping around. You must slay them with a sword before going on to the next ramp. Get off the ramps quickly, or they'll disappear underneath you.

You can lose a life by falling down between ramps or being got by the Goons. This takes you to a nice resurrection sequence and back to the start of screen. The second screen involves jumping onto a disk and running into the wind blown by air genies trying to blow you off the disk. Then comes Skull hallway and more monsters.

There are five more stages before your final encounter with the dragon. Here you have to slay the dragon to rescue Princess Daphne. And that's where part II comes in.

I dislike this kind of game. Game after game you must repeat the same thing, trying to learn each screen by trial and error. The constant repetition and death drives me up the wall. Of course you always have to go back to the beginning and do the whole damn thing over again. It presents a great challenge, some good graphics and original gameplay but I find it frustrating to the point of insanity. **BW**

FIRST-DAY TARGET SCORE
Get to the Skull hallway.



Dirk ready to leap on the falling disk

SECOND OPINION
I found this copy of the arcade smash frustrating. One wrong move and I was dead; starting at the beginning every time death tapped me on the shoulder was not my idea of fun. Still, the graphics are detailed and colourful, the musical intro pleasant and there is a lot to accomplish. The home computer has a long way to go before achieving laser-disk quality. **RpM**

GREEN SCREEN VIEW
Overall not too bad. Some screens do lose out though.

The Verdict

GRAPHICS 68%
- ☐ Good graphic settings.
- ☐ Excellent animation sequences.

SONICS 66%
- ☐ Pleasant tunes throughout.

GRAB FACTOR 60%
- ☐ You may think it's frustratingly addictive.
- ■ Or just horribly frustrating.

STAYING POWER 70%
- ☐ The nine screens will test anyone.
- ■ The men in white coats will get you before you see them all.

AA RATING 67%
- ☐ Very original gameplay and concept.

ESCAPE FROM SINGE'S CASTLE

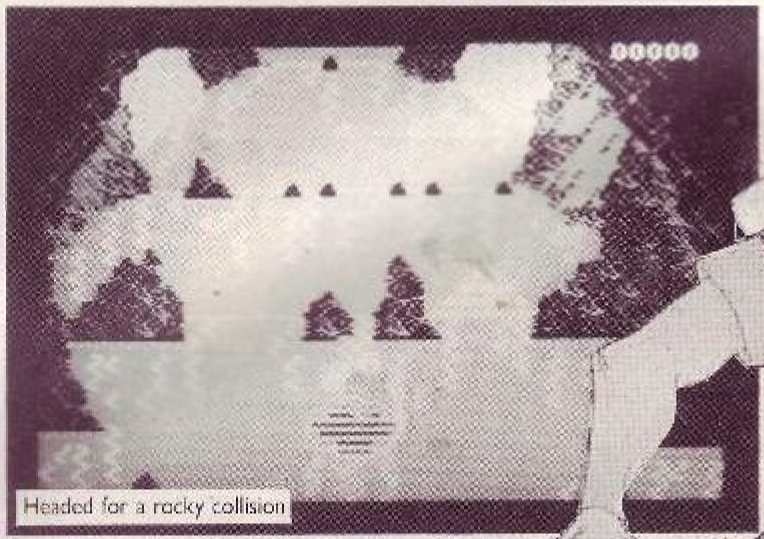
Software Projects, £8.95 cass, £14.95 disk, joystick or keys

After surviving *Dragon's Lair* you'd think Dirk the Daring would be happy to settle down and live happily ever after in a palace in the country. Oh no. This brainless twit goes back to the dragon's castle in search of treasure. This means another eight stages of perilous adventure.

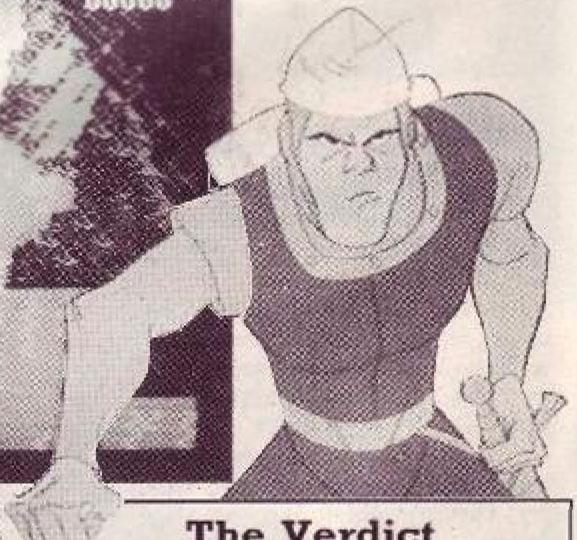
It all starts in the river caves, where you have to negotiate a series of screens containing boulders or whirlpools. The boulder screens will have two or three possible passages through the rocks. One will flash and you have to go through it. This needs quick reactions and concentration because your first move is the one the game takes – you can't correct an error. Pick wrongly and your coracle crashes on the rocks.

The whirlpools come in groups of three and have to be steered around. In all there are eight boulder stages and six whirlpool stages. Failure on any of them not only results in a spectacular crash, but going back to the start as well.

Survive that little lot and you're plunged into an even worse situation. A boulder is chasing you down a gulley while smaller boulders criss-cross it and holes go by underneath. You've got to run and jump to avoid the lot, otherwise it's curtains and you get squashed under the boulder.



Headed for a rocky collision



There are six other stages including one where you have to get the gold you're after. Finally there's a confrontation with the mud monsters who try to block your final escape.

This sequel is much more playable and enjoyable than the original. It's got plenty of originality but unfortunately quite a bit of frustration too. The graphics are excellent, with some great animation and effects. I would reccommend this above *Dragon's Lair*. But even then, be prepared for a lot of infuriating games. **BW**

FIRST-DAY TARGET SCORE
Get to the boulder in the gulley.

SECOND OPINION
Better than Dragon's Lair: at least from the point of view of surviving. You tend to live longer, but still start at the beginning if you die. The same bold, colourful graphics have been used. Again there is lots to discover if you can reach it. If you must get one of the laser-disk copies then make it Singe's Castle. **RpM**

GREEN SCREEN VIEW
Certain screens are difficult to see.

The Verdict

GRAPHICS 84%
- ☐ Well-drawn scenes.
- ☐ Excellent animation.

SONICS 77%
- ☐ Good tunes and effects.

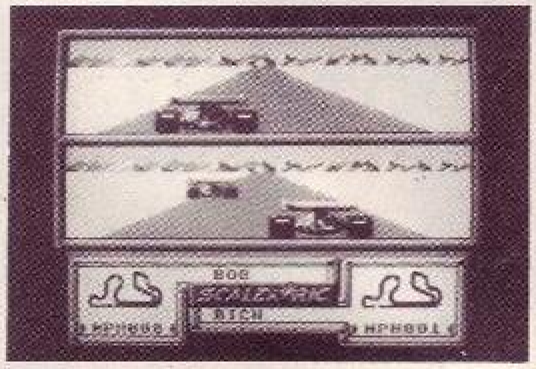
GRAB FACTOR 72%
- ☐ Easier to get into than *DL*.
- ■ One careless slip still sends you back to the start.

STAYING POWER 80%
- ☐ Eight more testing stages.
- ☐ Much more playable and higher skill element.

AA RATING 77%
- ☐ Get this instead of the original.
- ■ Still guaranteed to drive you up the wall.

SCALEXTRIC

Virgin/Leisure Genius, £9.95 cass, £14.95 disk, joystick or keys



The old slot-racing was one of my favourite pastimes in my younger days, and I wouldn't mind going for a spin again today. The computer version doesn't put the cars in slots but it does let you create your own tracks to race on.

Only two cars can take part. The screen is split to show both of them even if they're half a lap apart. Two human drivers can take part or one against the computer. A two-player game is more exciting even though the computer has three difficulty levels. The screen display is fairly bare apart from the cars. There are no markings on the track and just cones and barrels whizzing by at the side to indicate movement.

The racing is very limited in nature because it's too easy to crash the cars when trying to overtake. It means that whoever gets out in front at the start will usually win. And if cars collide, the race ends immediately. Running off the edge of the track just slows the car down and doesn't crash it. Corners are the only place you'll be able to pass and even that is extremely risky.

There are 17 formula-one circuits already programmed. You can design your own using any of the track pieces. You're limited by the size of the screen and the track has to join up – apart from that you can do what you like. This is the best feature of the game: saving tracks and trying them out.

The game would have been improved by havinghazards on the track, other cars and less easy crashing. However, it's still enjoyable to play and design tracks. **BW**

SECOND OPINION

I do enjoy racing games, but this was a big disappointment. Odd things happen with two-player games: one player normally zooms ahead of the other, and the leader's joystick affects the already dispirited opponent. You can alter much of the game though, introducing hairpin tracks and other such hazards. Not top of my list for racing simulations. **RpM**

GREEN SCREEN VIEW

Fine.

FIRST-DAY TARGET SCORE

Beat difficult computer car.

The Verdict

GRAPHICS 61%
- □ Large, well drawn cars.
- ■ Bare tracks with few features.

SONICS 31%
- ■ Just engine noises.

GRAB FACTOR 58%
- ■ Crashing is infuriatingly easy.
- ■ No hazards on the track.

STAYING POWER 66%
- □ Track-design feature is easy to use.
- □ Lots of fun playing around with tracks.

AA RATING 61%
- ■ Could have been a lot better with a little thought.

TERMINUS

Mastertronic Added Dimension, £2.99 cass, joystick or keys

Budget software really has entered a different dimension these days. In the past multi-character arcade adventure-exploration games have been the stuff of full-price titles. Not any longer, because here you have just that.

The four characters you control are Mobod, Xann, Magno and Spex. They are Wanglers, teenage rebels, trying to rescue another of the team, Brains, from the authorities. He's trapped on the prison planet Terminus and you have to release him.

Each of the four characters has different control features that make getting around particular areas of the game easier or harder. Mobod can fly around, but you have to keep pushing up to keep him there. Xann does the same but can stay up for only a limited time. He also has less manoeuvrability.

Magno can fly straight up and crawl along the ceiling, also only for a limited time. Spex bounces everywhere and is the hardest of the four to control. All four Wanglers can also walk around the complex.

Terminus has 512 locations, all very colourful and most packed with hazards. Static creatures, flying robots and various defence barriers all can drain your energy. Energy can be replenished, but the units that do so aren't easy to find.

You'll encounter teleport terminals with which you can switch characters and continue the search. There are also computer terminals that log your position and can be returned to later. Computers also control a series of locked gates that have to be opened.

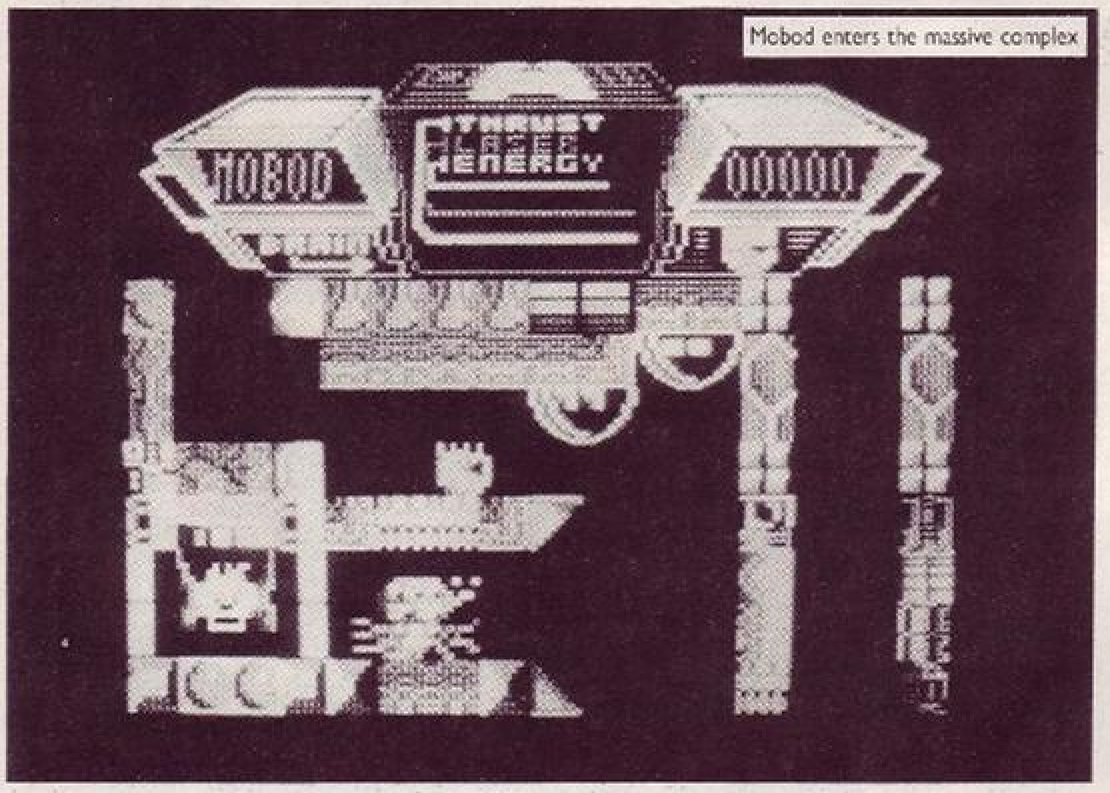
Exploring the complex is a lot of fun, particularly because of the different characters. There's plenty to get through, puzzle elements and even shooting to liven up the proceedings. Super value for £2.99. **BW**

SECOND OPINION

The game is cluttered. Too many graphics in too little space. This wouldn't have been a problem if the style had been kept constant throughout the screen. Conflicting patterns make playing Terminus *a bind. Still, there's lots to explore, the odd tune, and it's cheap and enjoyable.* **RpM**

GREEN SCREEN VIEW

A few designs get lost, but that's no problem.



Mobod enters the massive complex

FIRST-DAY TARGET SCORE

Find recharge unit.

The Verdict

GRAPHICS 78%
- □ Lots of colour and detail.
- □ Well-animated characters all over the place.

SONICS 48%
- ■ Just a few effects.

GRAB FACTOR 71%
- □ Four different characters to control.
- ■ You may tire of the exploring.

STAYING POWER 78%
- □ Tough, 512-location playing area.
- □ Features like teleports and computers add variety.

AA RATING 79%
- □ A bargain at £3.
- □ Good one for the mappers.

FA CUP FOOTBALL 87

Virgin, £7.95 cass, keys only

A re-release of the same game from last year. It's got updated data for this season but is otherwise unchanged. Little action and slow to play – you have to wait a long time for the draw to be made. Don't get it if you bought it last year. **BW**

The Verdict

GRAPHICS 10%
■ Just text of different sizes.

SONICS 15%
■ Occasional crowd noise and an anthem.

GRAB FACTOR 45%
☐ Gets some of the atmosphere of the cup competition.
■ Lots of boring pauses.

STAYING POWER 30%
☐ Not bad as a multi-player game (up to 8 can play).
■ Little skill involved.

AA RATING 37%
■ Had little going for it last year and less this time.

THE SYDNEY AFFAIR

Infogrames, £9.95 cass, £14.95 disk, keys only

This is the followup to *The Vera Cruz Affair* and takes exactly the same format. You investigate the scene of a murder for evidence and then use the police computer to try to find the culprit. Has the same depth and detail but also the same annoyingly unintelligent keyboard responses when you get something wrong. **BW**

The Verdict

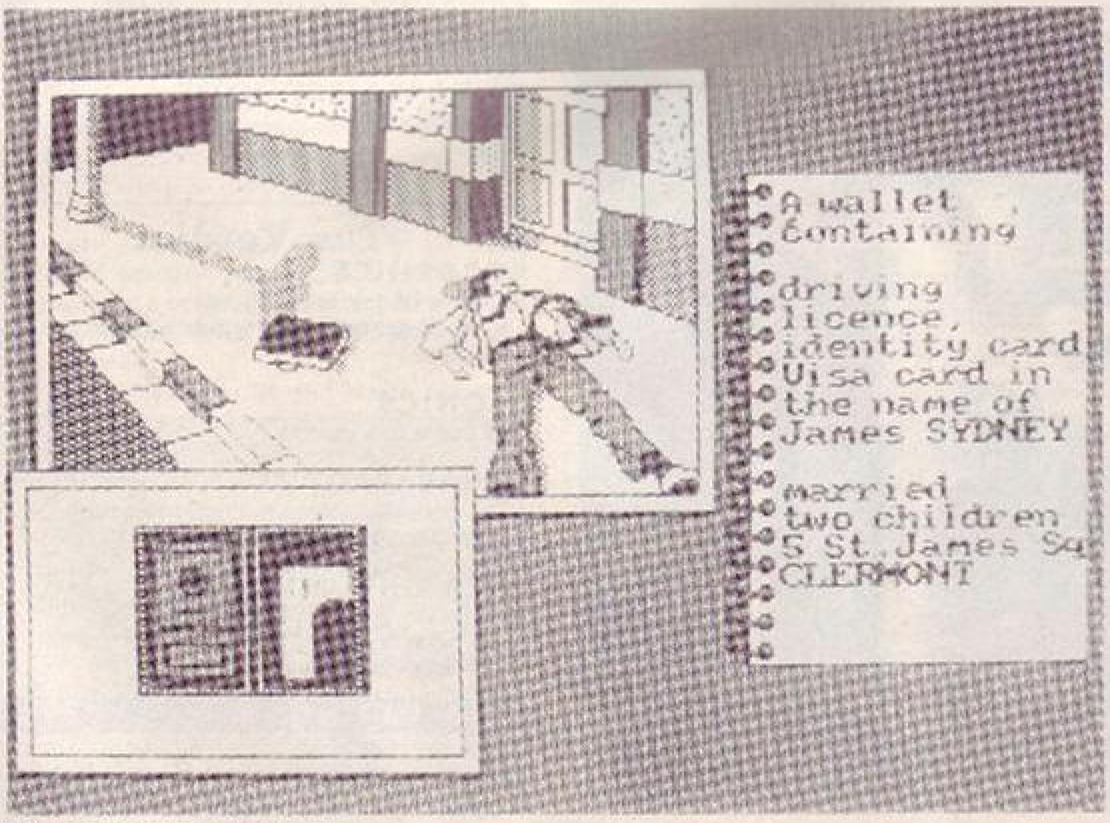
GRAPHICS 64%
☐ Excellent opening titles and scenes.
☐ Well-organised menus and computer faces.

SONICS 10%
■ A gunshot and little else.

GRAB FACTOR 50%
☐ The investigation will hook you.
■ But text input problems are annoying.

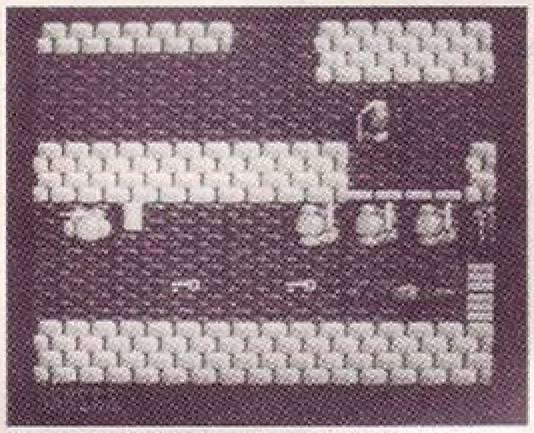
STAYING POWER 68%
☐ A complicated, interesting investigation.
☐ Rewarding if you persevere.

AA RATING 62%
☐ Good buy for fans of *Vera Cruz*.



INTO THE EAGLE'S NEST

Pandora/Interceptor, £8.95 cass, £14.95 disk, joystick or keys



A *Gauntlet*ish game set in a Second World War castle. Large attractive graphics viewed from above. Fight your way through the castle to complete one of the missions. Non-stop action but maybe a bit too hard. **BW**

The Verdict

GRAPHICS 84%
☐ Large, colourful characters and features.
☐ Very nicely designed castle.

SONICS 60%
☐ Pleasant tune and some effects.

GRAB FACTOR 76%
☐ Exploring and blasting from start to finish.
☐ Doors to open and other objects to collect.

STAYING POWER 74%
☐ Lots of rooms and different missions.
■ Never any respite, so it's too easy to die.

AA RATING 74%
☐ Good variation on *Gauntlet*.

CHICKIN CHASE

Firebird, £1.99 cass, joystick or keys

Farmyard antics come to your keyboard. You control a cockerel who has to protect his hen's eggs from marauding animals. He also has to... ummm... errr... well you know, in the privacy of the henhouse of course. To keep his strength up he eats corn and worms. Man, is it a tough life. **BW**



The Verdict

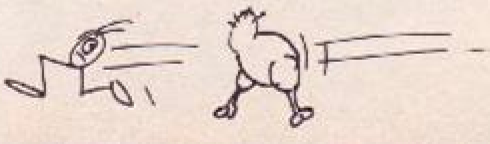
GRAPHICS 69%
☐ Large, well-animated animals.
☐ Nicely designed henhouse.

SONICS 48%
☐ Good pecking effects.
■ Precious little else.

GRAB FACTOR 68%
☐ It's so easy to play.
☐ Enjoyable sense of humour.

STAYING POWER 52%
☐ You can play for ages going in and out of the hut.
■ Action gets very repetitive.

AA RATING 64%
☐ Generally a lot of fun for little money.



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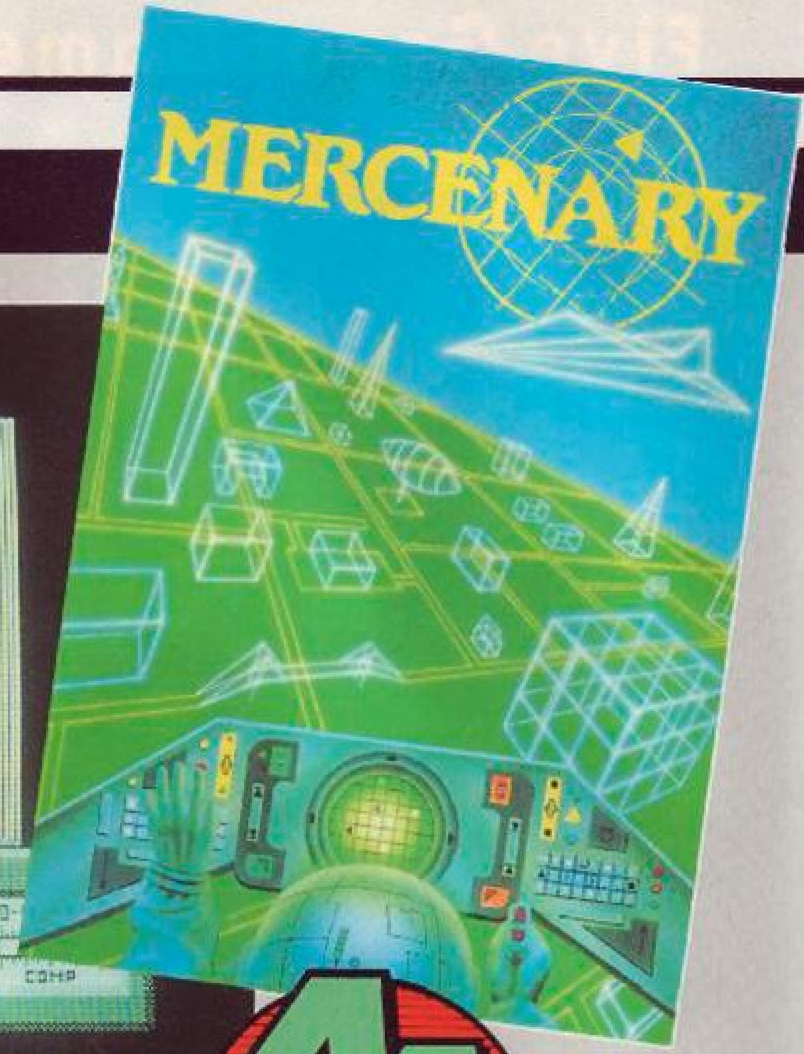
BEAU-JOLLY

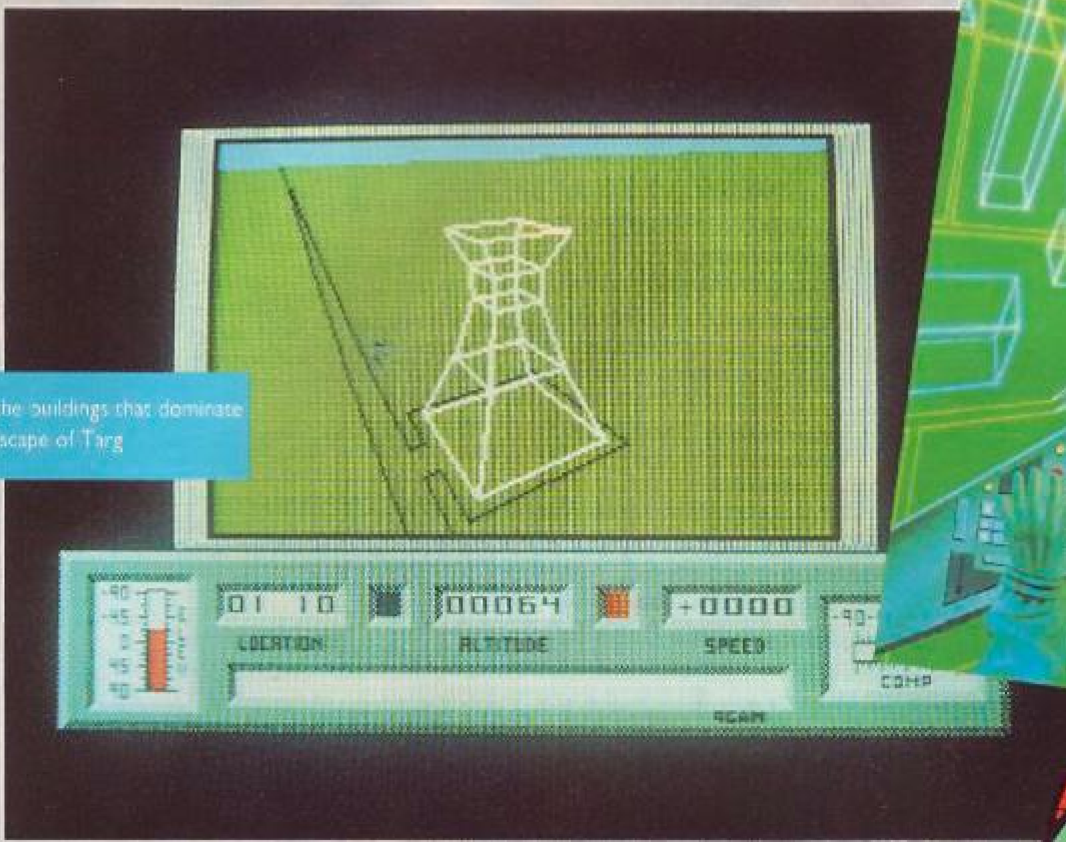
The name behind the great games

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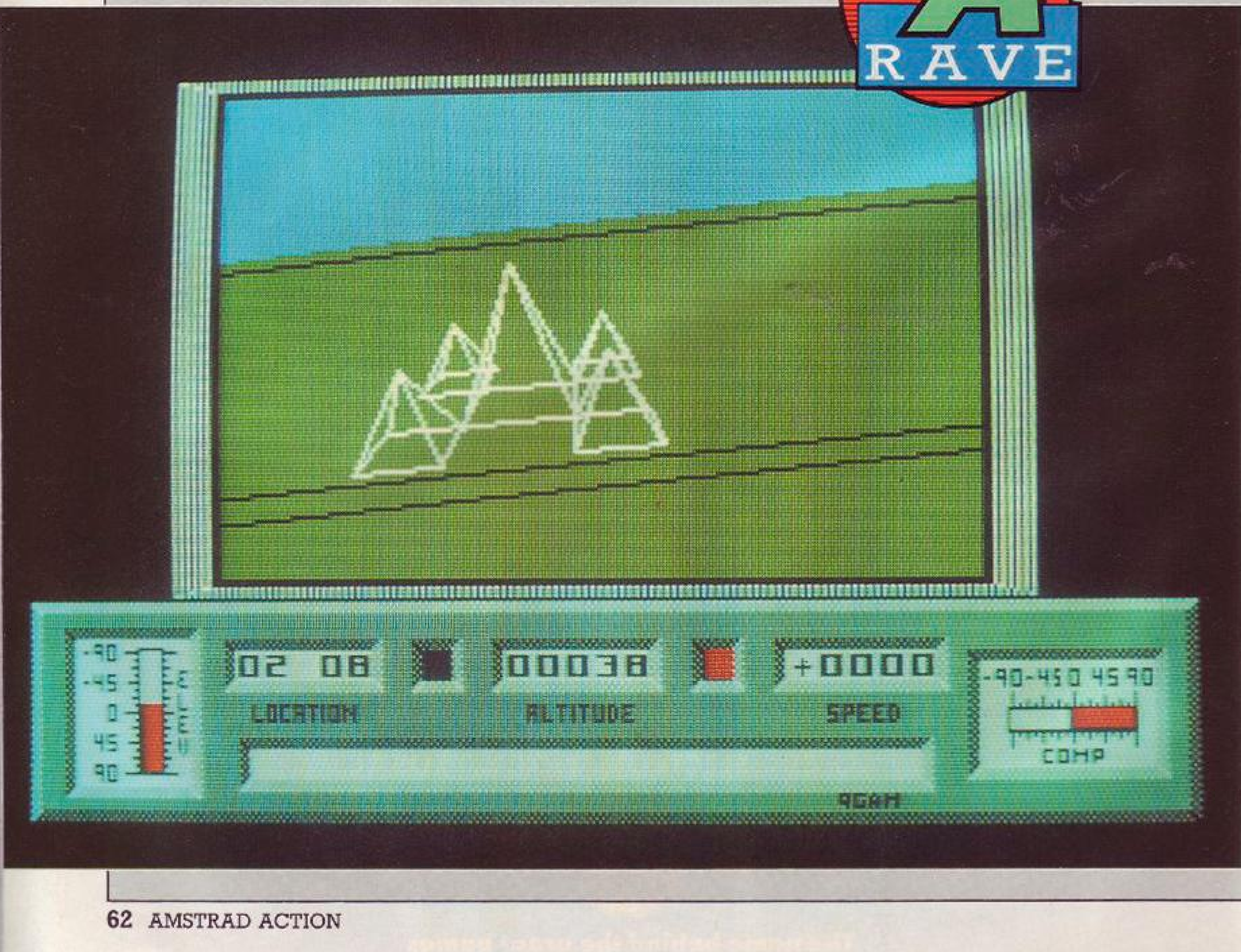
MERCENARY

Novagen, £9.95 cass, £14.95 disk, joystick or keys





One of the buildings that dominate the landscape of Targ



When you talk about conversions to the Amstrad you often think of versions that were knocked off in a couple of minutes from a Spectrum game, so it comes as a pleasant surprise when one is as good as this. It was certainly a job and a half to squeeze in all the excellent vector graphics and game features, well accomplished by Dr David Aubrey-Jones from Paul Woakes' original.

You start on an interstellar flight controlled by your computer Benson. The trip goes horribly wrong, and you crash-land on the planet Targ. Benson gives you a running commentary on events but fails to prevent the ship ending up nose-first in the dirt. Your task is to find another ship that can get you off this godforsaken, wartorn hellhole and back to your life as a soldier of fortune. Not that the planet doesn't offer opportunities in that direction.

Standing by your wrecked ship, Benson informs you you've crashed next to an airstrip where a ship is for sale. Cough up the credits and you can be on the move. You could walk around on foot but it's impractically slow on the planet's surface. You'll quickly get a message from one of the two protagonists in Targ's civil war, and this will help you find your first important location. Here you can investigate one of the city's underground complexes.

Flying the ship is easy. Even if you do pile it into the planet you will only be thrown clear and can re-board without damage. You will come across several different craft. Some stay on the ground; all differ in speed potential, handling characteristics and height ceilings.

When you reach the location given to you at the start you can take an elevator down to the underground complex. Here you'll have to move around on foot to search the many rooms and corridors. These can contain objects which you can pick up and use later. Some doors will be locked, and others bear symbols – you'll need to become familiar with them because they do confusing things like teleporting you all over the city.

You can't manipulate the objects much. But Benson will let you know what you've picked up, and then it's up to you to deduce what to do with it. An awful lot of exploring will be needed before you'll get very far with the adventure part of the game, so it's important to make maps of the underground complexes. It's also very handy to use the save-game feature.

SECOND OPINION

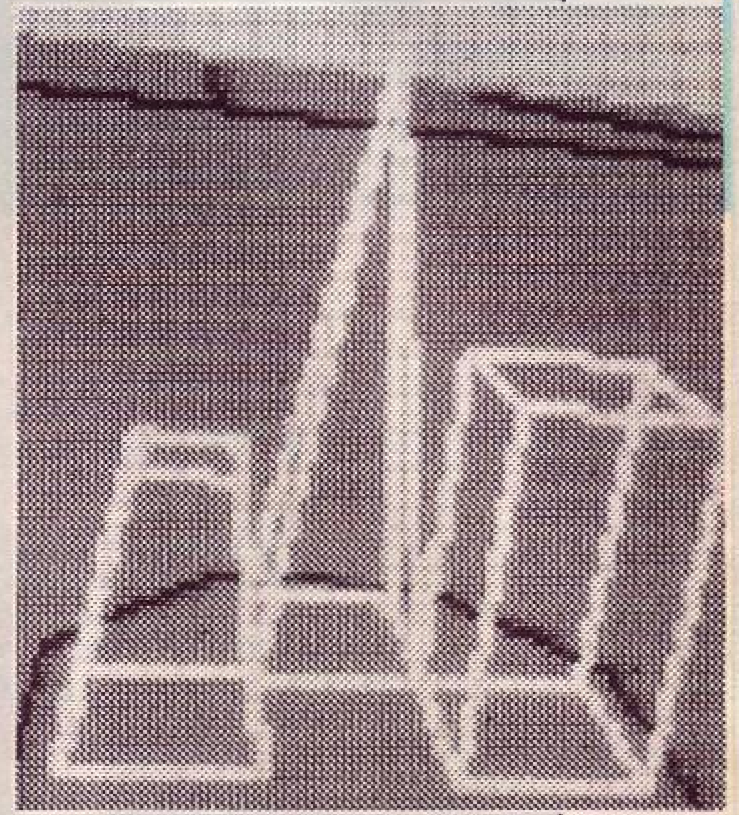
Some of the fastest and smoothest vector graphics are incorporated within Mercenary. *Initially there is little action (boredom may set in). But the pace soon hots up: there is a whole world to explore, cities, buildings, rooms and a mission – get off the planet.* **RpM**

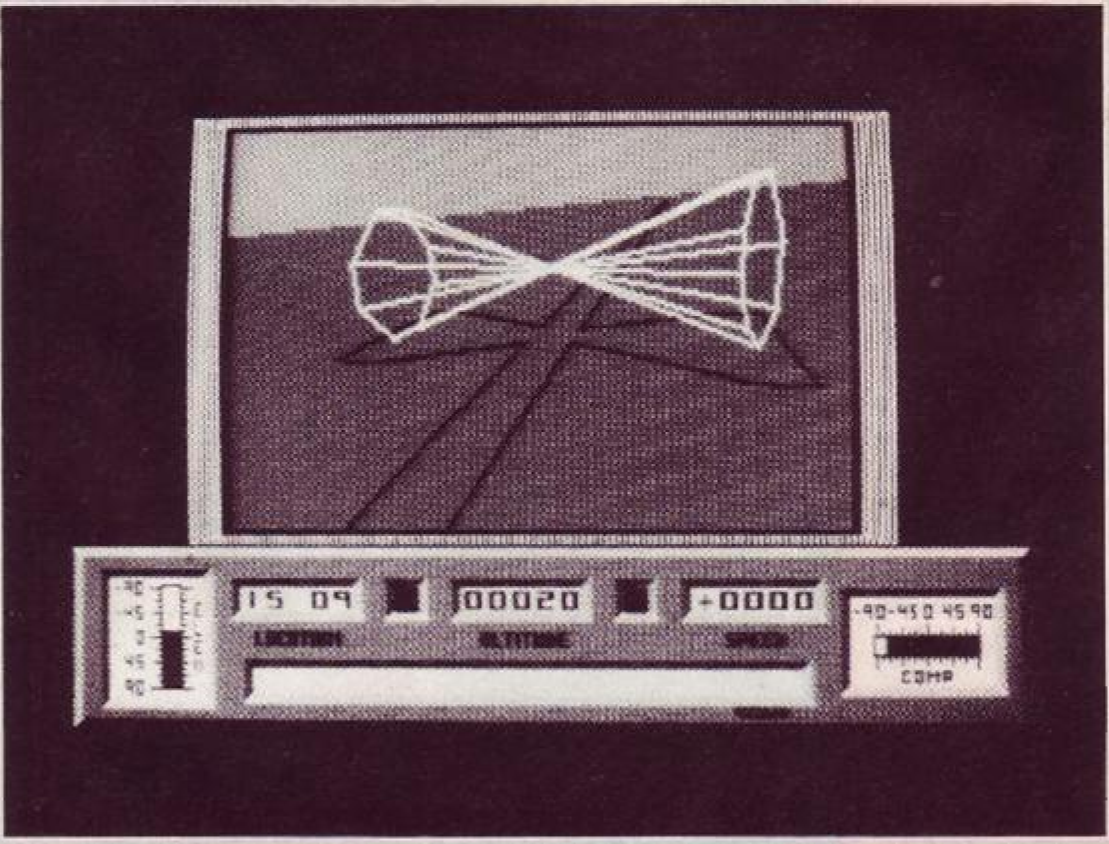
GREEN SCREEN VIEW

The sparse use of colour means that green-screen is perfectly visible

Back above ground there are lots of buildings that don't serve much purpose except to sit at junctions of roads looking good. You can fly around and through them, and if you fire a missile at them they'll collapse spectacularly. That, however, brings the locals' ships down on you. They can put your ship out of action, scattering your possessions and leaving you to find another one.

In the long run you need to find a ship with enough thrust to get to an orbiting Colony Craft above the city and then find the ship that can get you off the planet. To start with this is a daunting prospect but becomes more realistic as you become familiar with the world of Targ.





The graphics both above and below ground are very smooth and fast-moving vector (wire-frame) graphics. These work well, particularly for collapsing buildings, but the screen is frequently quite bare of features. Initially you'll just want to fly and walk around the game before tackling the task in hand.

This is the game's strong point, its creation of a "real" environment. You actually feel like you're flying around the city and walking the corridors of its underground buildings. Most players will be intrigued and absorbed by this, but the dreaded word *boring* may occur to some. If you get involved with the "real world" atmosphere and the adventure task I don't think that should be a problem.

It's certainly a game you should look at, if only to see the smoothness and speed of the graphics, and for many it will be an escape into a world they may not want to leave. Escape from Targ will certainly prove harder than escaping the real world by playing. **BW**

The Verdict

GRAPHICS 84%
- ☐ Smooth and fast vector graphics.
- ■ Screen is often very bare.

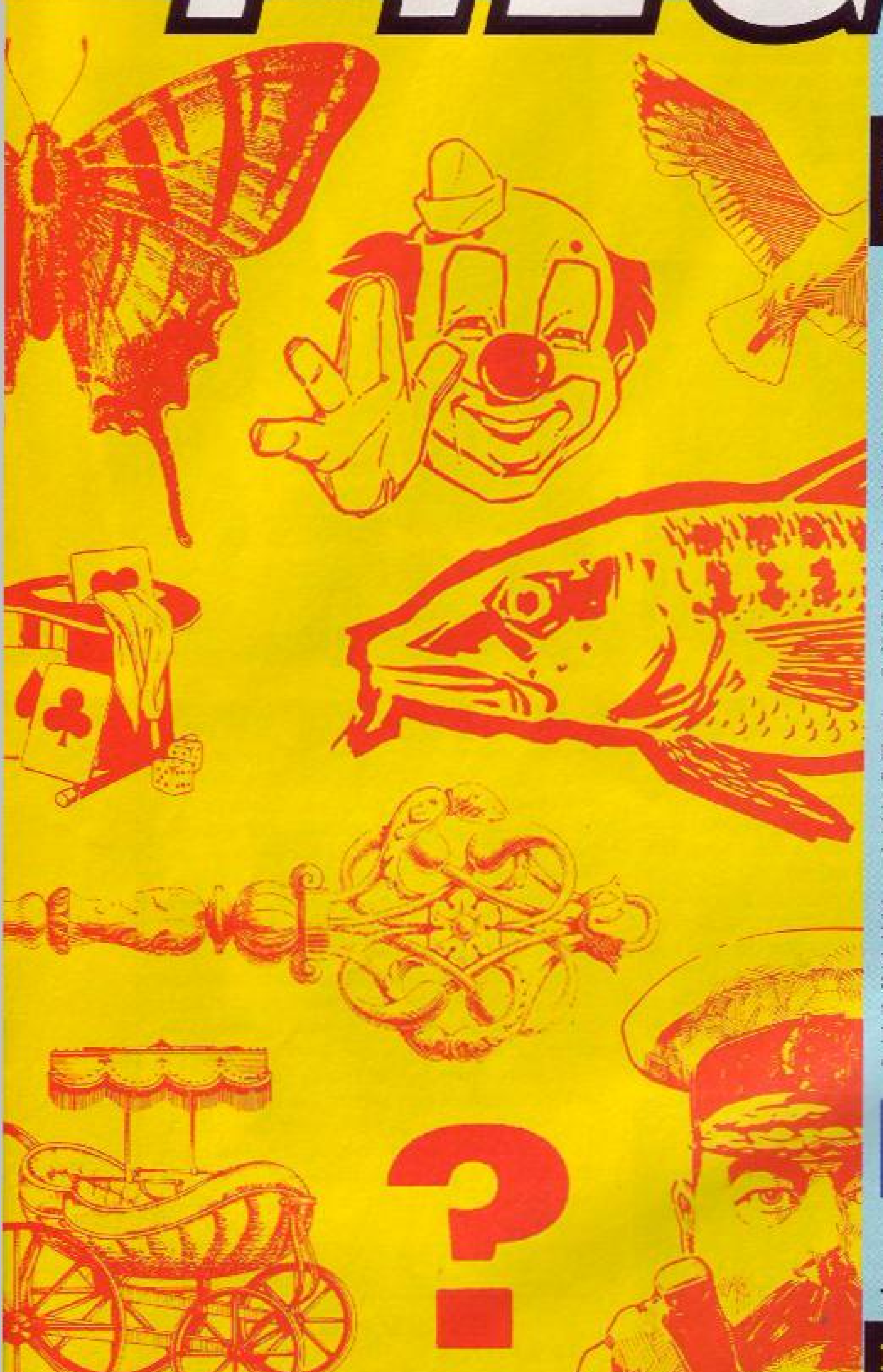
SONICS 20%
- ■ Just a few effects.

GRAB FACTOR 78%
- ☐ Feels like you've entered a new world.
- ■ Lots of exploring but not much doing at first.

STAYING POWER 87%
- ☐ Very tough to get off Targ.
- ☐ Once hooked the exploring and adventuring is unstoppable.

AA RATING 85%
- ☐ Very original combination of flight sim, shoot-em-up and adventure.

THE PILGRIM



This month, fellow Pilgs, we go to the sublime and expensive from the ridiculous and cheap. We dally in Hollywood with Infocom, and take the mickey out the Royal Family with 8th Day Software. And what's more, the Pilg's programming series marches on with a look at interactive characters and the very first type-in listing. Then, if you're still sane, you can check out the immense Clue Pot, find out why Joan Pancott of Somerset is the Pilg's Lady of the Month, and wonder why Carla Fowler is sweating it out over Classic Adventure in darkest Malaysia...

The ridiculous...

HRH

8th Day Software (18 Flaxhill, Moreton, Wirral, L46 7UH), £2.99

8th Day has been around for quite a while, specialising in cheap *Quill*-generated games. Some of its games have been quite good value at £2, but times change and now the going rate is £3 (less the proverbial penny). *HRH* is the most recent release, and the publisher is at pains to declare that it is not designed to be defamatory...

"I point out, however, that although the game is irreverent towards the Royal Family, in no way is it offensive to minors, and contains no material whatsoever that could be considered in poor taste."

This is one of those games that definitely requires perseverance on a grand scale. By that I mean that, due to Quillimitations, many of the objects do not have descriptions and the vocabulary is restricted. That essentially means little to do to pass the time other than try your best to work out what to do in each sticky situation. Since you can't do much in the way of conversing, this is really confined to finding and using objects in the right way.

The game is written with a good deal of humour – some of it, I thought, rather unfair to the Royals, but then I doubt whether many people will get worked up over that. The sequence most likely to cause offence, I would have thought, is that in which you must tell Andy the results of his girlfriends' pregnancy tests. However it's handled in a jocular manner which one would hope will not cause writs to fly.

For a *Quill*-based game there are a good many puzzling problems here, not all of which can be solved by logic alone, but most of which will either challenge, amuse, or both. I think I'd probably splash out £3 for it (minus the persistent penny), though 8th Day should remember that *Quill*ed games without graphics have to compete with *GAC* products these days. As it is, *HRH* looks a little dated, but (with the exception of the appalling loading screen) carries itself off quite nicely.

Atmosphere 55% **Interaction 45%** **Challenge 58%**
***AA* rating 59%**

The expensive...

Hollywood Hijinx

Infocom/Activision, £24.99 disk only – all CPCs

Well, this *is* interesting, mused the Cowled Crusader, pondering over Infocom games past and present. *Hollywood Hijinx* is something of a step back in time for Infocom – not in quality, I hasten to add, but in content and style.

After all, we've recently had a number of games from the Masters of Adventure, each of which has boasted a new and original storyline with lots of character interaction to boot. Now we have a return to the good old-fashioned treasure hunt.

Forget *Collossal Cave* and *Zork*, however, because this hunt takes place during the space of a single night spent at your Aunt Hildebrand's luxury Hollywood mansion. Aforesaid Aunt has recently kicked the bucket and left you her millions, providing that you can locate ten treasures within the house overnight. The game starts with you being dumped outside the house without so much as a front-door key, and only twelve hours to come up with the goodies.

Despite the old-fashioned scenario, *Hollywood Hijinx* is a superb game, well up to Infocom standards. It also boasts the biggest maze that the Pilg has ever wandered through, with about 200 locations. Unfortunately, however, it's not too difficult to find a map to it, though I suspect that that is a drawback for which most players will be profoundly grateful!

The game is full of excellent and original puzzles. The vocabulary doesn't strike one as among the largest of Infocom's games, but that may be a false impression. Problems with words and inputs, however, are few and far between.

I only have one gripe with this game. Unlike most previous Infocom titles, this one has a vein of American humour that in one or two instances is quite lost on a European audience. The tricky situations you find yourself in, however, are of universal appeal, so don't let the references to Sonny Tofts et al put you off.

Another Infocom game makes its way to the top of the Pilg's shelf. Buy it if you can...

Atmosphere 89% **Interaction 90%** **Challenge 92%**
***AA* rating 90%**

Clue sniffing with the Pilgrim

Get a snort of this! A simmering pot of goodies, positively bubbling over with problem-solvent. So get stuck in and get out of the woods with the Pilg...

And in case you're wondering, these clue-ettes come to you courtesy of **Kevin Jones, Stewart Ferguson, Paul McEvoy, A Ding, Lindsey Till, Paul Mackay, Russell Cooper** and, of course, the Cowled Crusader.

Heroes of Karn
To kill spirit, ask Istar to wave wand.

Erik the Viking
Pray to the tombstone.
Don't mess with the door in the hill.
Use mirror to scare away dogfighters.
Get bird spit first time – there is no second chance.



Seabase Delta
Play the Heavy Metal to open the doors.
Iron the foil.
Make something tasty to cover the camera.
Don't bother with the disk.
Make a seesaw with a barrel of laughs, planks, nail, and a hammer.

Never-Ending Story
For a short-cut underground, remove planks.
To get the Golden Key drop a coin by the Wraith.
To finish the game say please...
Don't hang around for too long in the torture chamber.
Cut web with small knife.

Red Moon
Wear a cloak to get past the statue.
Buy pills from Nezzon the Alchemist, insert them into meat, give meat to dog to get past it.
To open sarcophagus in sun temple, say *obis*, take brooch (causes mummy to attack) say *ollabin* to turn mummy to dust.
Way out of tiny passages maze from bronze staircase: SE, SW (pick up Medallion), SE, SE, W, SE.
Sword too hot to pick up – wear leather gloves.
Examine leaves in dead wood cabinet for an acorn engraved with a bridge – use it with the chasm spell found in the library.

Spytrek
Give the tramp seven coins and then he will help you.
Peel onion in cockpit
Hook handle of umbrella to cable
Cast line into lake.

Redhawk
To arrest Fusor, try the wellies from Oxford Gardens.
To arrest rat, try the cat from Brook Court
To arrest Merlin, let him cast a spell at Redhawk and change to Kevin.

Dungeon Adventure
Drop the ornate box in the water to kill snake.
Drop salt pig in water.
In the crusher room throw wedge of wood.
When sitting on throne push button 4 to get the lapis lazuli, onyx and Mithril collar. You need the polished staff from the second dead-end room to release the dwarf.
Search the haystack in the storeroom for a needle.
Wear the coldcream to defeat the fire elemental and get a sun medallion.
From the gully above "winding stair" go in to find some valuable ore.

Message from Andromeda
To kill slug, wear gloves, get fungus, throw fungus at slug.
Kill alien commander with space axe. Kill creature – exam skeleton, cut ropes, get stones, throw stones at creature.
Escape to ship via teleport.

Pilgrim's postbag ...

Paeans of praise for Pancotts!

First into the mailbag this month were two letters united by a common bond – Pancott-mania! "Please, please, please mention the Pancotts of Dorset again. God only knows how kind and helpful they have been in helping with adventures for me and hundreds of others. They got me through *Return to Eden* with just a few nettle scratches!" Thus writes **Andrew Marshall** of London. And **Debby Howard** (also from the Big City) echoes his praises: "Joan Pancott from Dorset has been a great help to me – a *true* Lady of Adventure!"

So how about a word from the Big Ps themselves? No sooner said than done – herewith the latest gen from **Joan Pancott**...

"February 2 was the day I received my 1000th plea for help, and during the five weeks since then I have had on average six a day! Since my name first appeared in *AA* 16 months ago I have had 46 letters and 1165 phone calls including the two from Australia and more recently two from Denmark and three from Portugal. I really enjoy all the calls and the chance to talk to people who share my interest in adventures.

"Please pass on my very best wishes to all at *AA*, and I wish you continued success with the column. I am in the position to know how popular it is, and with *Amtix* no longer around I know it is going to become even more so."

Well, Joan is back in the Lords and Ladies of Adventure column this month, fellow Pilgs, with yet more games to her credit. She does ask, however, that you call her "PM only" – so after noon, please Pilgys, and not too late.

Sandra's 70-hour week...

Another busy bee on the adventure scene must be **Sandra Sharkey** of *Adventure Probe* magazine. "I'm thoroughly enjoying running the mag – even though I have to put in about 70 hours a week to keep it running smoothly. I'm very proud that I haven't had one complaint yet, and all the subscribers are as enthusiastic as myself."

Sandra then goes on to say that she's a "Mrs with five sprogs." Ye gods! How does one put in a 70-hour week *and* look after five Sharklets? Answers please to the Pilg, who will pay a King's Ransom to anyone who can tell him how to squeeze 70 minutes out of one hour.

Many faces of the Pilg...

Lisa Monteiro of Southampton (no relation) has sent in some very risque pictures of the man with rod and staff. Her brief fashion booklet, which is far too revealing to print here, shows, among other goodies:

1 The Roman Look. The Pilg looks very sophisticated in leather.
2 The Everyday Look. The Pilg looks most dignified in his *extremely* fashionable cloak.
3 The Macho Look. The Pilg looks very macho as he poses for this picture (censored).
4 The Monday-Morning Look. The Pilg looks his normal Monday-morning self in this beautiful portrait. (Must be some mistake here – looks like some sort of hideously disgruntled were-lion.)

Thank you, Lisa – if ever you want to draw from life, just contact my agent.

Flattery gets you everywhere...

"Dear Pilgrim," writes **Lee Russell** of ... London (again). "Having read your article for some months now, one can easily gather that you have a great knowledge of adventuring..."

Shucks, Lee, I didn't know you cared. What can I say, except... 'Tis true, every word. I am without doubt a Pilg of some distinction. In fact, as Winston Churchill used to say... *(That's enough bull't. Pay the man his fiver and get on with it. –Ed.)*

Er, yes, well... Lee is a newcomer to the world of adventuring and continues: "I'm very interested in entering this new world, for many of the arcade games soon bore me: grey matter becomes redundant, reactions being foremost. This would seem to make adventure games a good alternative. Yet here's where I hit a brick wall. Which one to choose? Obviously I want one that will gently drop me into adventure, getting progressively harder – yet not patronisingly so. Also orc-bashing and spell-casting turns me right off! I own a 6128 and am willing to spend up to £20 for the best start."

Hmmmm... Well, with a 6128 you're on course for disk-based games. I wonder why you don't like spell-casting? Is it because you've seen some pretty miserable examples of this scenario? For example, Infocom's *Sorcerer* is a brilliant adventure, but it does involve casting a few spells. The same can be said of Infocom's *Wishbringer*, which would otherwise be my first recommendation for a beginner adventure: witty, not too difficult, and very far from patronising.

On the more modern front, you could try Infocom's *Suspect* – a whodunnit set in a 20th-century American mansion with excellent interactive characters – or *The Pawn* from Magnetic Scrolls (distributed by Rainbird). Most of these fall into the 15-25-pound bracket and are worth every penny.

I'm afraid there aren't many tape-based games around that one can confidently recommend without hesitation. As one gets further into adventuring one acquires a taste for some of them. But I always think it's best to start with the best – and if you go for Infocom you can't go too far wrong.

Don't ask her why!

Carla Fowler writes: "When I wrote to you last, I was in good old cold rainy England. There's been a drastic change! I am now in bad old hot sweaty Malaysia – please don't ask me why!"

I'm sorry, Carla, but I must. The Man with Rod and Staff and British Airways open ticket wants to know why you're in Malaysia, how you can afford *AA* out there when it costs £2.50 a copy, and why you *still* haven't finished *Classic Adventure*. Answers on a postcard please, together with a little more detail as to *where* you're stuck in these games. Then maybe we can print the clues to help...



Lords & Ladies of Adventure

Once again the Noble Ones condescend to offer you worthless maggots help with your adventuring problems. Their reputations shall endure for ever, and if you send me a postcard with your name, address, and list of games completed you can join them. (If you do it by Prestel, please don't forget to say geographically where and personally who you are.)

The usual warnings. First, if you write to a Lord or Lady, please make sure you enclose a self-addressed envelope with stamp. And if you phone, keep to sociable hours – not after 10pm and not before 9.30am. After all, these people have to sleep...

Make sure if you apply to join this Glorious Band that you actually *have* completed the games you claim, and that you are well and truly prepared to render help in a courteous and useful fashion to those lost souls who contact you. It could involve you in more work than you think (Joan Pancott!), so think before you apply. However, for those prepared to make the effort, the opportunities for friendship and contact across the world are enormous.

Adventure Quest, Apache Gold, Arnold Goes to Somewhere Else, Boggit, Bored of the Rings, Brawn Free, Castle Blackstar, Classic Adventure, Crystal Theft, Dungeon Adventure, Emerald Isle, Erik the Viking, Forest at Worlds End, Heroes of Karn, Hobbit, Jewels of Babylon, Kentilla, Lords of Time, Message from Andromeda, Mindshadow, Mordons Quest, Never-Ending Story, Price of Magik, Project Volcano, Qor, Questprobe III, Red Moon, Return to Eden, Seabase Delta, Seas of Blood, Smugglers Cove, Snowball, Souls of Darkon, Spytrek, Subsunk, The Trial of Arnold Blackwood, Very Big Cave Adventure, Warlord, Wise and Fool of Blackwood, Worm in Paradise
Joan Pancott, 78 Radipole Lane, Weymouth, Dorset, DT4 9RS ☎ (0305) 78 4155

Rebel Planet, Aftershock, Dracula, Hunchback, Inca Curse, Castle Blackstar, Mordons Quest, Ship of Doom, Heroes of Karn, Warlord, Message from Andromeda, Forest at the Worlds End, Jewels of Babylon, Souls of Darkon, Adventure Quest, Erik the Viking, Lords of Time, Never Ending Story, Spytrek, Fantasia Diamond, Subsunk, Seabase Delta, Mindshadow, Robin of Sherwood, Nythyel, Theseus, Arnold Blackwood Trilogy
Graham Wheeler, 2 Burford Close, Southdown, Bath, BA2 1JF

Seabase Delta, Warlord, Subsunk, Never-Ending Story, Message from Andromeda
RA Aisthorpe, 33 Brocklesby Close, Gainsborough, Lincolnshire

Forest at Worlds End, Jewels of Babylon, Never Ending Story, Return to Eden, Warlord, Lord of the Rings
James McMahon, 12 Sidehead Holdings, Stonehouse, Lanarkshire, ML9 3PG

Enchanter, Sorcerer, Spellbreaker, Hitchhikers Guide, Zork 1, The Pawn, Heavy on the Magick, Dun Darach, Colossal Adventure, Adventure Quest, Dungeon Adventure, Snowball, Red Moon, Price of Magick, Never-Ending Story, Hobbit, Bored of the Rings, Return to Eden
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Keith Hemingway, 27 Richmond Road, Leeds 6

Gems of Stradus, Jewels of Babylon, Message from Andromeda, Warlord, Red Moon, Lords of Time, Colossal Adventure, Dungeon Adventure, Snowball, Imagination, Hobbit, Tomb of Kuslak, Boggit, Subsunk, Never-Ending Story, Heroes of Karn, Return to Eden, Dracula
Darren Stephens, 65 Crown Road, Milton Regis, Sittingbourne, Kent, ME10 2AH

Forest at Worlds End, Jewels of Babulon, Heroes of Karn, Message from Andromeda, Hobbit, Hook One, Hook Two, Beerhunter, The Mural, Price of Magik, Emerald Isle, Red Moon, Bored of the Rings, Boggit, Bugsy 1 and 2, Spytrek, Secret of St Bride's, Sorcerer of Claymorgue Castle, Hitchhikers Guide, Souls of Darkon, Lost Phirous 1 and 2, Colossal Adventure, Aftershock, Apache Gold, Winter Wonderland, Colour of Magic, L'Affaire Vera Cruz, Never Ending Story, Project x Microman, Robin of Sherwood, Subsunk, Seabase Delta, Imagine
Sandra Sharkey, 78 Merton Road, Highfield, Wigan, WN3 6AT

Heroes of Karn, Warlord, Jewels of Babylon, Forest at Worlds End, Message from Andromeda, Red Moon, Emerald Isle, Return to Eden, Lords of Time, Snowball, Smugglers Cove, Brawn Free
Andrew Walton, Over Alderley, Macclesfield, Cheshire, SK10 4UG

Message from Andromeda, Never-Ending Story, Wild Bunch
Alan Ashfield, 5 Sulhamstead Hill, nr Reading, Berkshire, RG7 4DE

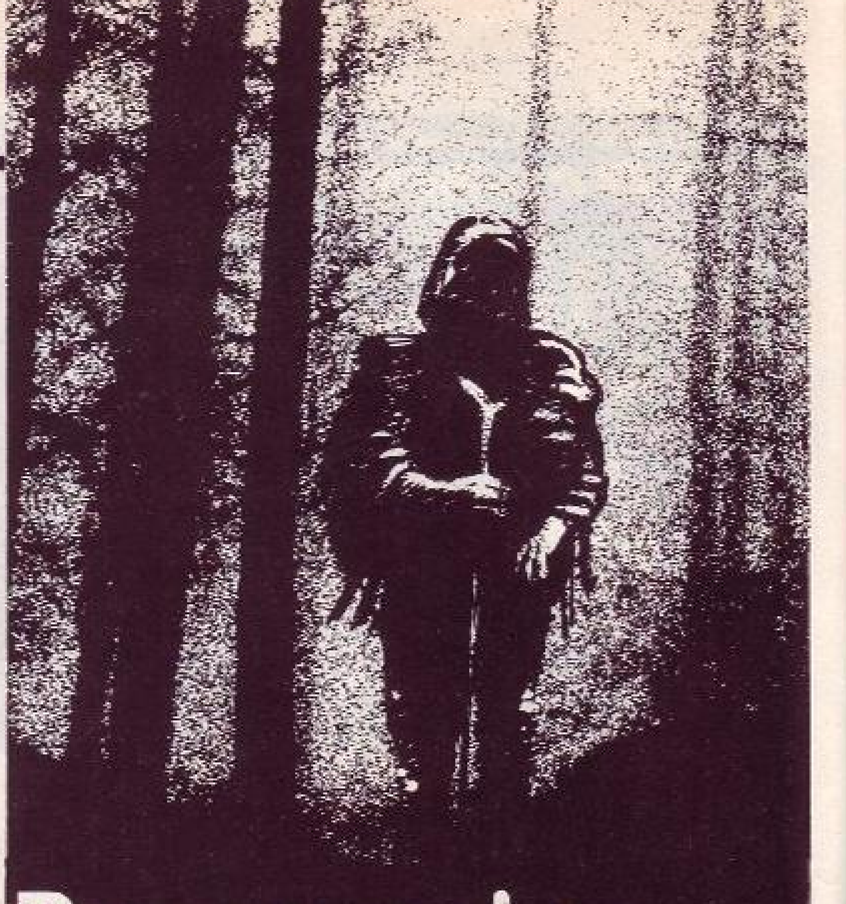
Message from Andromeda, Jewels of Babylon, Forest at Worlds End, Heroes of Karn, Warlord
Peter Inglis, Ar-Dachaidh, Ardelve, Kyle, Ross-shire, IV40 8EH

Apache Gold, Arnold Goes to Somewhere Else, Brawn Free, Escape from Khoshima, Forest at Worlds End, Never Ending Story 1,2,3, Knight Tyme, Red Moon, Trial of A Blackwood, Wise and Fool of A Blackwood, Warlord, Worm in Paradise, Fantasia Diamond, Return to Eden, Message from Andromeda, Seabase Delta, Spytrek
Paul McEvoy, 7 Clyde Avenue, Ferniegair, Hamilton, ML3 7TY ☎ (0698) 42 6846

Heroes of Karn
PB Cook, Prestel 011 110 750

Lord of the Rings, all Level 9 adventures
David Sheppard, 12 Prinsted Walk, Fareham, Hants, PO14 3AD Micronet 919 999 537

Fantasia Diamond, Heroes of Karn, Forest at World's End, Message from Andromeda, Jewels of Babylon, The Never-Ending Story, Imagination
Paul William James Martin, 56 Marshall Rd, Oldbury, Warley, W Midlands, B68 9ED



Programming with the Pilg...

PART 4 **Last month we introduced the wild and wandering subject of interactive characters. This month we'll see how to store character data, and examine how such complex subjects can be handled efficiently in an adventure program.**

Until now we've concentrated on means of storing data in your program – about locations, objects, directions and so on. The reason for starting with all this is that data representation is a crucial part of an adventure program and determines to a large extent the range of features it can offer and its success or failure in executing them. Characters are no exception – indeed, characters have so many possible attributes that the way their data is handled is of particular importance.

Let's start by examining the problems of dealing with characters in the context of our four-location "mini-adventure", and introduce two important people: Cedric, who is not present at the beginning of the game, and a very hungry Pekinese dog called Sam. Here's how we might represent Cedric and Sam in a theoretical "character data table":

```
90 DATA "Cedric", 1, 0, -1396, 0, "Sam", 2, 1, -12510, 0
```

Character number, location, status value, inventory – Character number, location, status value, inventory

Each character can be stored in our program as a string (for the character's name), followed by four numbers which indicate respectively the character's number, its location, status and inventory. Information like this can then be read into an array at the start of the game, and can then easily be amended or updated at later stages of play.

Cedric's location is given as zero to indicate that he is not actually in the game when it starts, but he can of course be introduced at any time by setting the location value to match one of the locations on our map. The inventory entry holds the object number (if any) currently carried by the character.

Diagram A shows the significance of the status value. The first thing to notice about this is that it uses 16 bits rather than just eight. Once again the idea is to store as much information as efficiently as possible and in a way that the program can later manipulate easily using the logical operators AND, OR and XOR. Characters

are dealt with by a part of the program called the *character-handler*, and this sub-program requires all its data to be in numeric form and easily locatable.

Bit 15 of the status byte is used by the character-handler routine to test whether the character concerned is visible to the player. Bit 14 indicates whether or not it is mobile and may therefore be moved from location to location.

bit 15	bit 14	bit 13	bit 12	bit 11	bit 10	bit 9	bit 8	bit 7	bit 6	bit 5	bit 4	bit 3	bit 2	bit 1	bit 0
visible	mobile	comm-unicate	carry	eat	vuln-erable	mood		more				refresh			

Diagram A: How the 16 bits of the status value are used

Bit 13 is used whenever the player addresses the character – if the bit is set to zero, the player cannot communicate with the character and is told so. If the bit is set to one then the player can issue (limited) instructions to the character – and perhaps even get a reply!

Bits 12 and 11 determine the charcter's relation to other objects in the game. If 12 is set to zero, the character cannot pick up or carry objects. Similarly, if 11 is set to zero, the character cannot eat or drink objects.

Bit 10 determines whether the character can be killed by the player – there will always be some characters that you wish to preserve at all costs from aggressive players!

Bits 8 and 9 form a "bit-pair" (which we covered last month) and provide a value between 00 and 11 binary (0 and 3 decimal) to indicate the mood of the character as follows:

- 00 – Furious – attack the player!
- 01 – Annoyed, so don't co-operate with the player
- 10 – Content – may co-operate from time to time
- 11 – Happy, and always co-operative

You can see that the "mood" of the character could be used to dictate whether or not it will help the player or respond to commands. A dragon with a "mood" of zero could be a dangerous companion!

Bits 4 to 7 have a special function: they indicate how often a character should move from location to location. For this reason they could be said to represent "energy". For example, let's say that these bits hold the value 0011 (= 3 decimal). The character-handler will load this value into a storage location and, every time it processes the character, decrease the contents of that location by 1. As soon as the location holds zero, the handler will move the character to another location. This means that we can have characters that exhibit different movement patterns thorughout the game.

Bits 0 to 3 – the "refresh rate" also have some bearing on a character's "energy". They determine how frequently the character is processed by the character-handler. Again, the value held here is stored by the handler and regularly decremented. As soon as it reaches zero the character is processed. Since a character's actions are set in motion by the character-handler routine, it follows that the more often this routine processes a character, the more "active" that character will appear to be.

You can now see that Cedric starts the game at location zero, and is therefore effectively not in the game at the beginning. He is mobile and will therefore be moved from location to location by the character-handler. He can communicate, and is also able to pick up and drop objects independently if he comes across them. He is reasonably energetic, which means (as far as this system is concerned) that he would be moved by the character-handler fairly frequently. Incidentally, this figure can also be used as a measure of strength, thereby indicating that Cedric would be able to give a good account of himself in a fight with the player. When the game starts, he has nothing in his possession.

Sam, on the other hand, can neither communicate nor pick things up independently (dog lovers will no doubt take issue with me here – all I can say to them is SIT!). Sam is also very active – remember that the *lower* the refresh rate, the *more* active a character becomes, so Sam is highly energetic, which means that he'll move around a lot, and is liable to give the player a real thrashing if hostilities develop. This is quite in keeping with the traditions of the Pekinese, who were originally bred as lion-hunting dogs in China!

We've now considered various ways of defining objects and characters. Together with location descriptions, these data types will probably account for a large part of any text adventure program. Next month we'll summarize our data types and look at the operation of the *parser* – the part of the program that interprets your inputs – in greater detail. We'll then be ready to begin the actual programming.

Just before we finish, however, I want to introduce the idea of *decision trees*. Just as the structures we use to hold our data are important, so are the structures of the routines that handle that data. For example, we can use the IF-THEN construct to process information, sifting through a number of different conditions until we reach a conclusion, as in the following pseudo-Basic sequence:

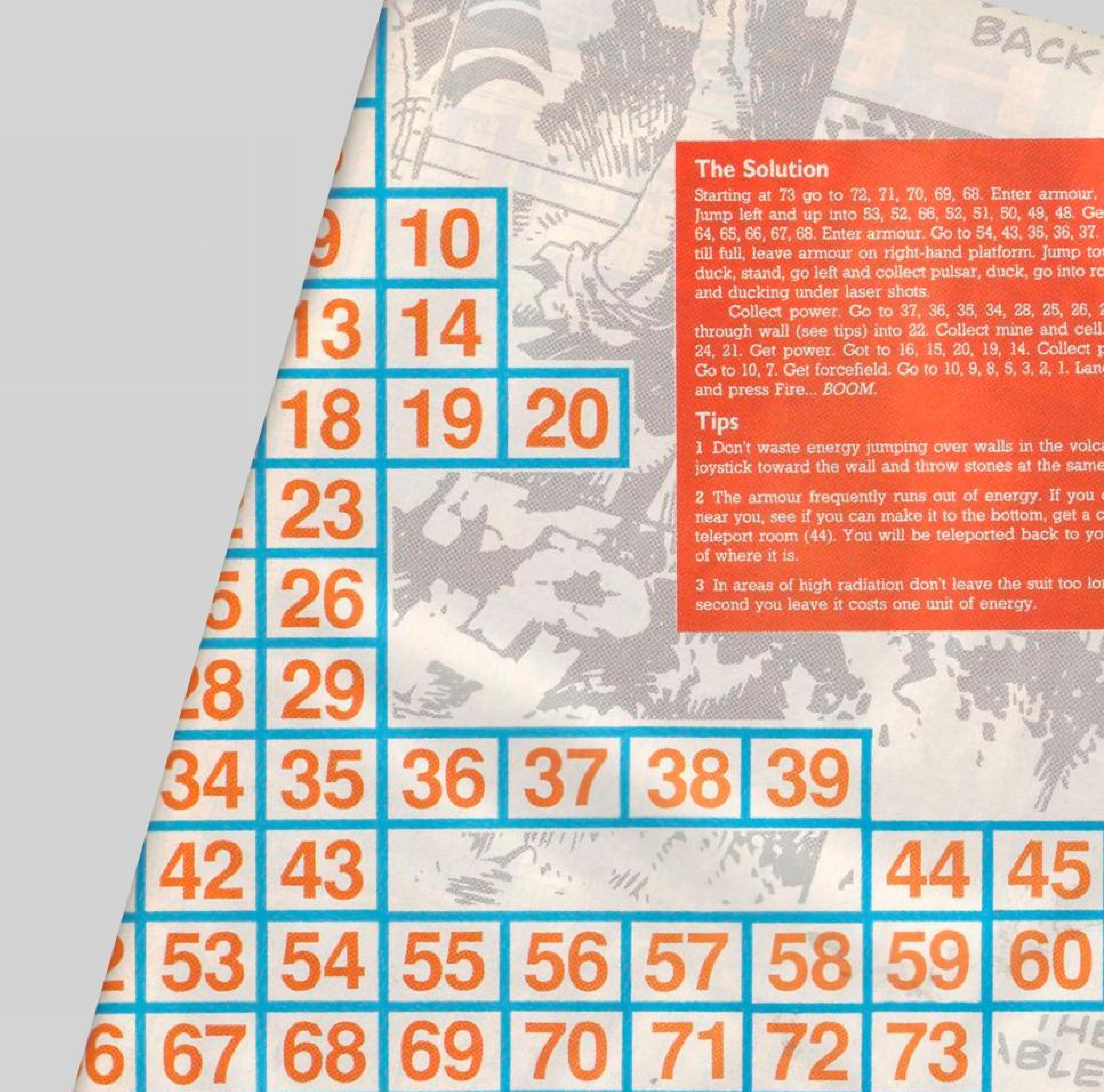
```
10 IF THE DRAGON IS IN THE KITCHEN GOTO 30
20 SIGH WITH RELIEF: GOTO 70
30 IF THE PLAYER IS STRONG THEN DRAW SWORD AND GOTO 50
40 DIE OF FRIGHT: GOTO END
50 IF THE DRAGON IS ONLY ONE INCH TALL GOTO 70
60 DIE BRAVELY: GOTO END
70 PUT DRAGON IN POCKET: CARRY ON PLAYING...
```

The problem with this, however, is that you are liable – even in a small game – to end up with pages and pages of IF statements. What we really need is something a little different. So, to end this month's Pilgy Prog Piece, type in the listing and run it. Can you work out how it works? Find out next month...

```
1 ' Program for pilgrims to puzzle out
2 ' Amstrad Action   May 1987
10 CLS: node=1
20 RESTORE: FOR n=1 TO node: READ a$: NEXT n
30 PRINT a$;" (Y/N) ": GOSUB 44
40 IF node<8 THEN 20 ELSE RESTORE 60: FOR n=8 TO node:
   READ m$: NEXT n: PRINT: PRINT m$: END
44 i$=INKEY$: IF i$="" THEN 44
45 IF (LOWER$(i$)<>"y") AND (LOWER$(i$)<>"n") THEN PRINT
   "Answer yes or no... ": GOTO 44
46 node=(node*2)+ABS(LOWER$(i$)="y"): RETURN
50 DATA "Are you happy?", "Oh dear. Do you get on well
   with your parents?", "Hmmm...VERY happy?", "Do you
   live at home?", "Have you got spots?", "So there's
   something wrong...?", "Been drinking?"
60 DATA "Go home and sort it out then!", "Leave home at
   once!", "Cheer up then - it can't be that bad!", "See
   a doctor!", "Ye gods! A NORMAL person!", "Boy! Are
   you mixed up!", "You must have religious tendencies.",
   "That explains everything..."
```



THE SACRED ARMOUR OF
ANTIRIAD
START AT 61/73
ARMOUR AT 68
BOOTS AT 48
PULSAR AT 37
MINE AT 22
FORCE FIELD AT 7
TELEPORT AT 44
PONS WE
TICATED AND
OWED NO MERCY
1
2
3
4
5
7
8
11
12
15
16
17
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24
27
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51
61
62
63
64
65
MAP



The Solution

Starting at 73 go to 72, 71, 70, 69, 68. Enter armour. Jump left into 67. Jump left and up into 53, 52, 66, 52, 51, 50, 49, 48. Get boots. Go to 49, 64, 65, 66, 67, 68. Enter armour. Go to 54, 43, 35, 36, 37. Save Tal's energy till full, leave armour on right-hand platform. Jump toward pink object, duck, stand, go left and collect pulsar, duck, go into room 38 by running and ducking under laser shots.

Collect power. Go to 37, 36, 35, 34, 28, 25, 26, 23. Leave suit, go through wall (see tips) into 22. Collect mine and cell. Go to 23, 26, 25, 24, 21. Get power. Got to 16, 15, 20, 19, 14. Collect power if possible. Go to 10, 7. Get forcefield. Go to 10, 9, 8, 5, 3, 2, 1. Land on bottom pillar and press Fire... *BOOM*.

Tips

1 Don't waste energy jumping over walls in the volcano. Just push the joystick toward the wall and throw stones at the same time.

2 The armour frequently runs out of energy. If you cannot find a cell near you, see if you can make it to the bottom, get a cell, then go to the teleport room (44). You will be teleported back to your suit regardless of where it is.

3 In areas of high radiation don't leave the suit too long because every second you leave it costs one unit of energy.

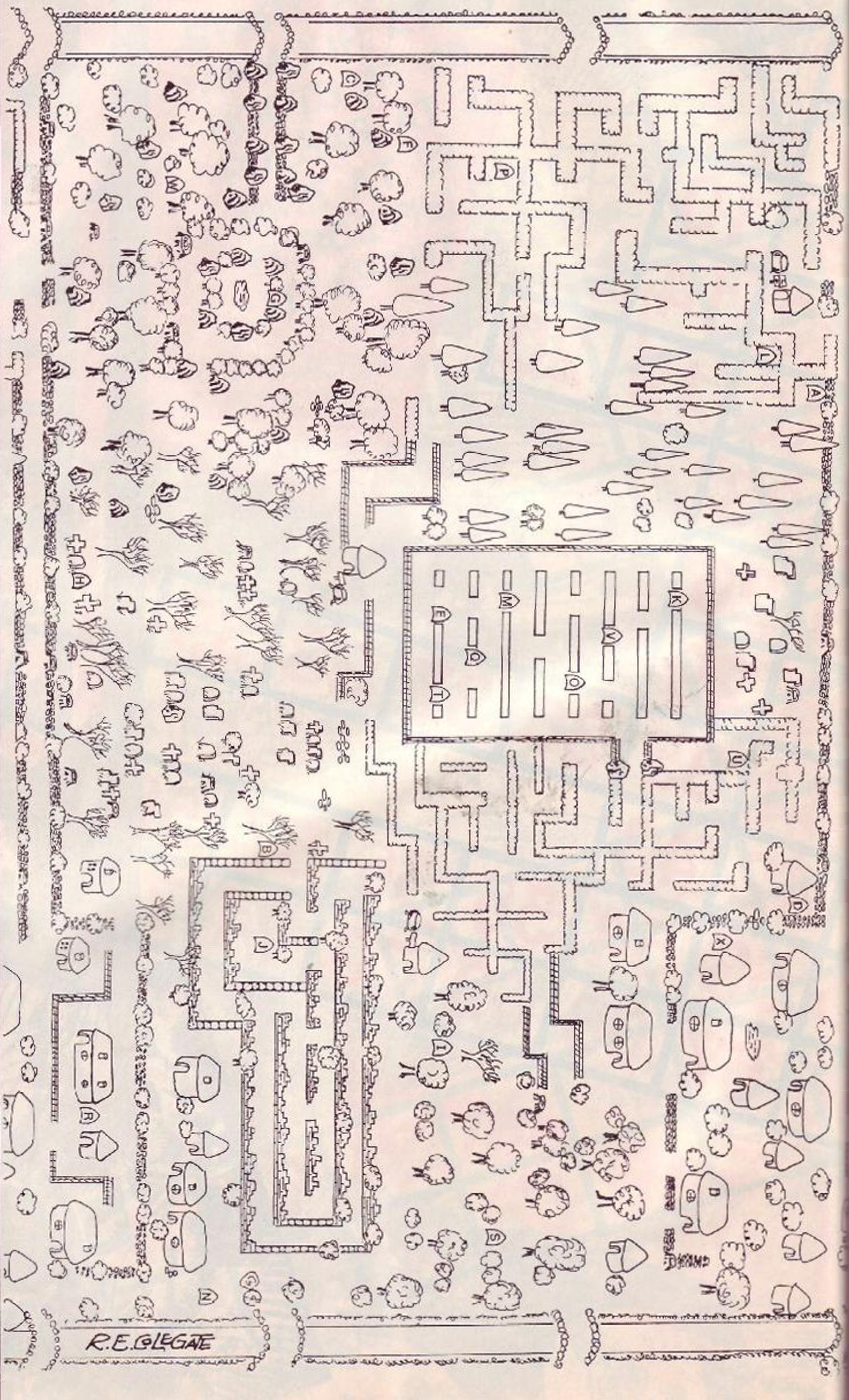
Y THE SPOOK



FEUD

Mapped by R E COLGATE

SPELL BOOK	SPELL LOCATION	SPELL LIFE	WORKS ON
TELEPORT	A & B	INFINITE	YOU
PROTECT	C & D	3 Times	YOU
SPRITES	E & F	7 Seconds	LEANORIC
ZOMBIE	G & H	2 Times 10 Secs	YOKELS
SWIFT	I & J	3 × 10 Secs	YOU
FREEZE	K & L	3 × 10 Secs	LEANORIC GARDENER
DOPPLEGANGER	M & N	4 Times	YOKELS TRAVELLERS
INVISIBLE	O & P	3 × 25 Secs	YOU
REVERSE	Q & R	3 × 20 Secs	LEANORIC
HEAL	S & T	2 × 1/4 Heal	YOU
FIREBALL	U & V	4 Times	LEANORIC
LIGHTNING	W & X	3 × 20 Secs	LEANORIC
SPELL BOOK	SPELL LOCATION	SPELL LIFE	WORKS ON



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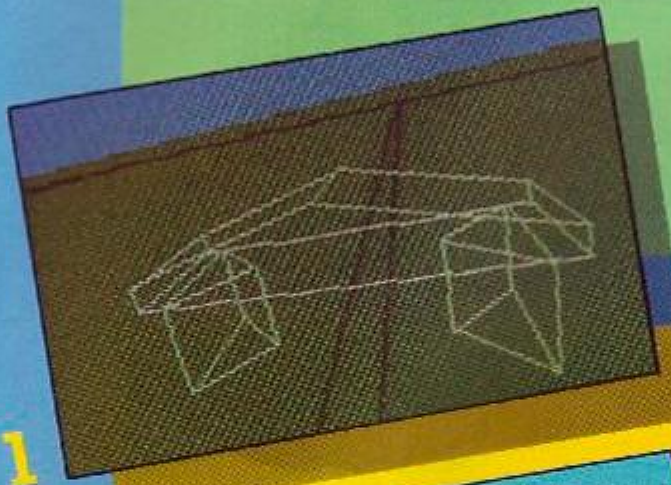
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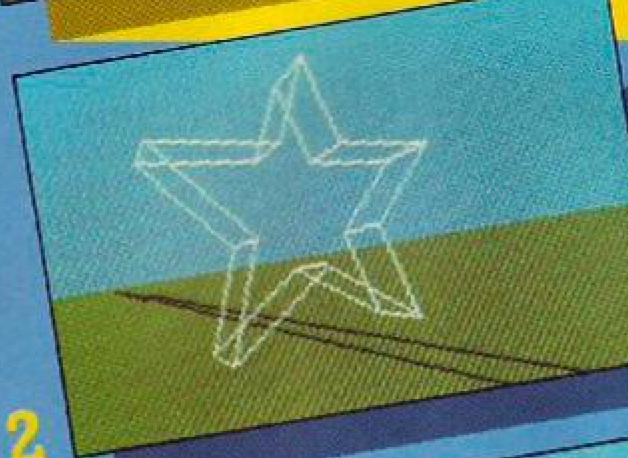
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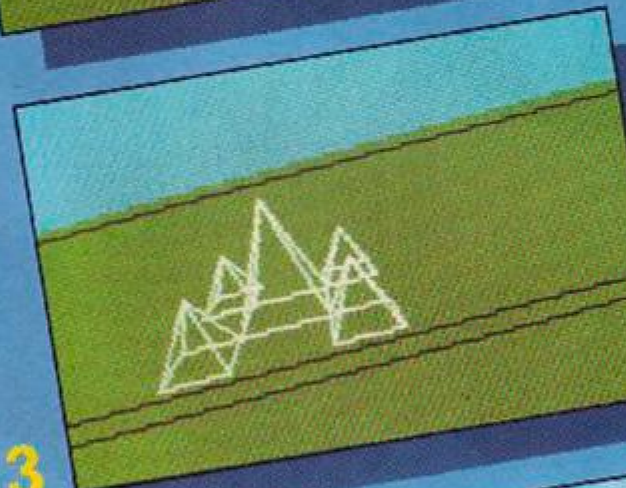
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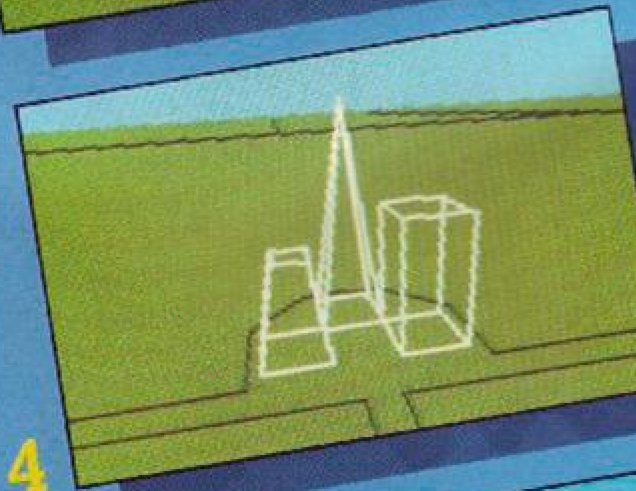
A MERCENARY FORTUNE

Win a superb Amstrad compact-disk player worth £200 or a trendy Mercenary T-shirt


1


2


3


4

Novagen has entered the Amstrad market with a bang. To celebrate, here's a chance to win the latest in lughole entertainment – a compact-disk player. It will make a lovely matching ensemble with your CPC because it's an Amstrad MCD 7 with twin cassette decks.

This excellent piece of technology usually costs £200 but it can be yours just by matching six names to six pictures from the game *Mercenary: Escape from Targ*. As well as an awesome first prize there are 10 runners-up prizes of *Escape from Targ* T-shirts that will make you feel like a soldier of fortune.

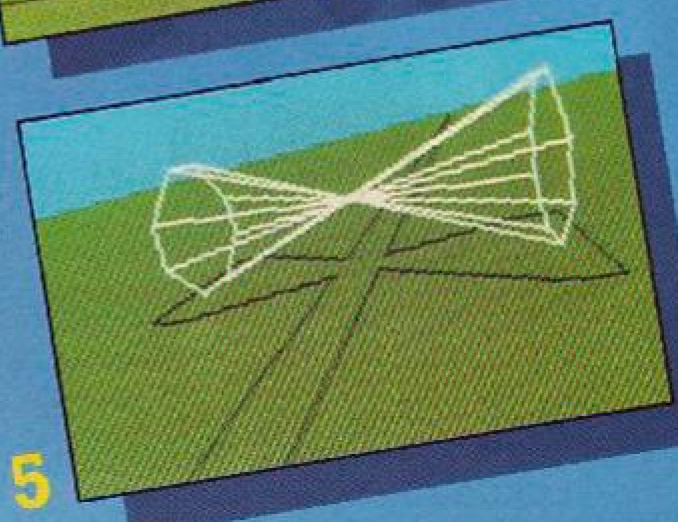
Entering the competition couldn't be easier. All you have to do is match up the six structures shown in the pictures with their six names. Each structure appears in Targ's central city in the game but isn't named in the program. Just match the six names labelled A to F with the screenshot that looks most appropriate. You won't need to play the game to work out which building is which – just use your powers of deduction.

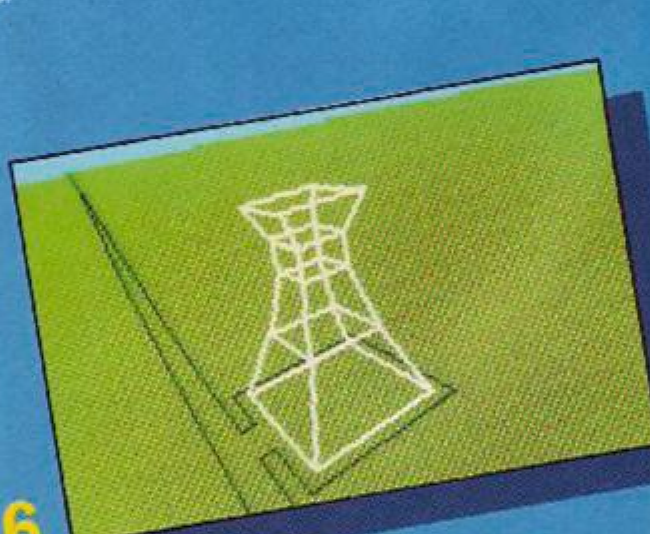
The structures are named:

A Star Chamber
B Marble Arch
C Power Plant
D Temple
E Doppelgänger
F Pyramid Point

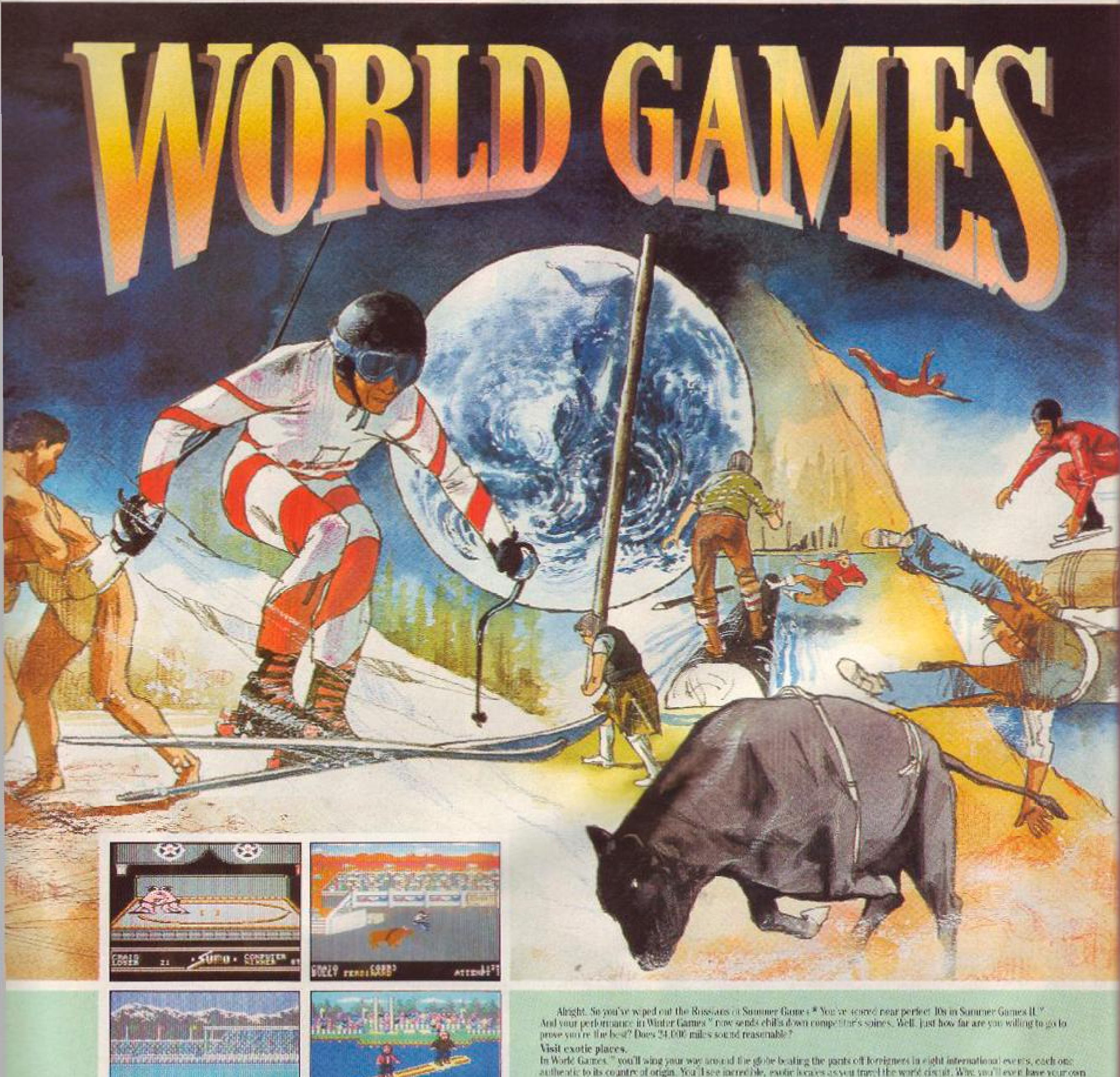
Pair these with the screenshots and, on a postcard or the back of a stuck-down envelope, match them up. If you think screenshot 1 is the **Temple** then put **1 – D**, and so on. Then complete this tie-breaker in not more than 12 words: **As a 21st-century soldier of fortune, I would need to be ....** . Finally make a note of your T-shirt size: small, medium or large. Don't forget your name and address.

Send your entry to **Mercenary Comp, *Amstrad Action*, The Old Barn, Somerton, Somerset, TA11 7PY.** They must reach us by May 13.


5


6

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6 copies of *Easiart*, a joystick and a 20% discount for every entrant – an offer you can't refuse.

Keep getting the urge to paint murals on the ceiling? Sudden uncontrollable desires to cut your ear off? Canvas, easels, palettes and paints can make a lot of mess and are expensive, so why not create a pixel-perfect masterpiece the easy way, with a copy of *Easiart*

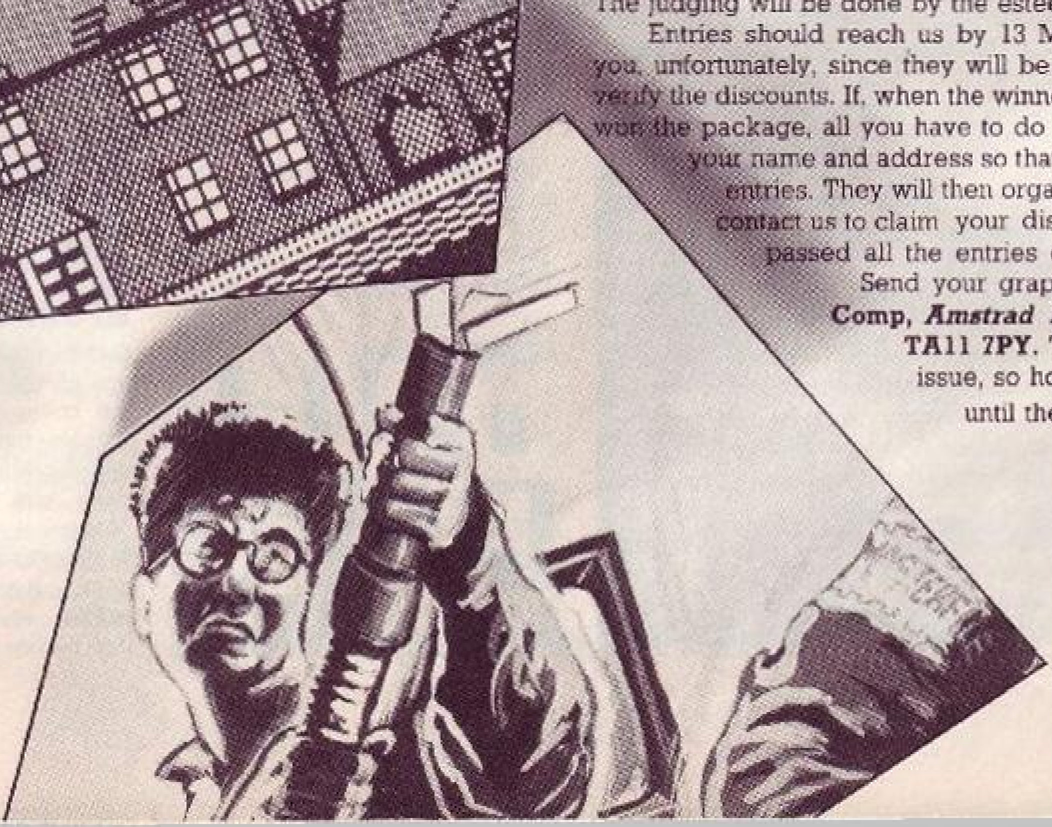
The art package from Micro Draw receives an enthusiastic review in this issue and can put a lot of creative power at your fingertips. We've got a great competition that makes every entrant a winner. There's a first prize of *Easiart* and a joystick, five runners-up prizes of *Easiart*. Even if you don't win the program you're guaranteed a good deal because everybody who enters the competition will be entitled to 20% off its price if buying it.



To enter you need to put your creativity and imagination to work, and produce a picture. It can be a picture of anything, produced through any medium – pencil, paints or even a collage. The only restriction is that maximum size is A3 (or A4 will do fine). The judging will be done by the esteemed *AA* art team.

Entries should reach us by 13 May. We can't return them to you, unfortunately, since they will be passed on to Micro Draw to verify the discounts. If, when the winners are published, you haven't won the package, all you have to do is contact Micro Draw giving your name and address so that they can check it against the entries. They will then organise your 20% discount. Don't contact us to claim your discount because we will have passed all the entries on to Micro Draw.

Send your graphic masterpieces to: **Easiart Comp, *Amstrad Action*, Somerton, Somerset, TA11 7PY.** The results will be in the July issue, so hold off claiming your discount until then.





CHEAT MODE

Dick'n'Bob check out your tips, pokes and game-busting ploys. The best ones could win an entire issue's *AA* Raves! So why not send *your* latest gem to: Cheat Mode, *Amstrad Action*, Somerton, Somerset, TA11 7PY.

IMPO SSA BALL

The unstoppaball **Tony Hoyle** of St Annes in Lancashire has hacked into Hewson's bouncing game. You are treated to infinite time and lives. If that dosen't take your fancy, you can choose an automatic-completion-of-a-level-when-you-die poke.

Enter the poke using Method 1. One point to be wary of: if you select infinite time you cannot have the complete-level-when-you-die poke – with both pokes selected, the program crashes.

```
1 ' Impossaball
2 ' by Tony Hoyle
3 ' Amstrad Action  May 87
50 MEMORY &13FF:MODE 1
60 LOAD"!",&8000
70 CALL &8000
90 LOAD"!",&1400
100 INPUT"Infinite
   Time";a$
110 IF a$="n" THEN 140
120 POKE &9634,0
125 POKE &963D,0
130 GOTO 170
140 INPUT"Complete level
   when you die";a$
150 IF a$="n" THEN 170
160 POKE &A44C,0
170 INPUT"Infinite
   Lives";a$
180 IF a$="n" THEN 210
190 POKE &A462,0
200 LOAD"!",&C000
210 CALL &8200
```

Nicholas Pavis of Rugby, Warwickshire, has also sent in *Impossaball* pokes: automatic placement on the next level when your time runs out, infinite lives, infinite time, removal of cylinders and a poke for pretty colours. Enter the listing using Method 1, omitting the pokes you don't require. If you want the poke for infinite time, you cannot use the poke to place you on the next level once your time has run out.

```
1 ' Impossaball
2 ' by Nicholas Pavis
3 ' Amstrad Action  May 87
10 OPENOUT"D":MEMORY &13FF
20 MODE 1:LOAD"!",&8000
30 CALL &8000
40 LOAD"!",&1400
50 LOAD"!",&C000
60 ' Time/Level poke
70 POKE &A45B,&CA
80 POKE &A45C,&4E
90 POKE &A45D,&91
100 POKE &A45E,0
110 ' Infinite lives
120 POKE &A462,0
130 ' Infinite time
140 POKE &962D,&C9
150 ' Remove cylinders
160 POKE &9C23,&18
170 ' Pretty colours
180 POKE &A3BB,&C9
190 CALL &8200
```

IMPOSSABALL

Poke methods

Here is how to input the majority of Cheat Mode pokes. The instructions for each poke tell you which of the two different methods to use. If you have a 664 or 6128, first type |tape.

Method 1

Rewind the game tape to the beginning. Now type in the poke listing. Then type RUN and press the Enter key. (Don't use the key marked CTRL or Control; that would stop the poke from working.) Press the Play key on the cassette deck, then any key on the main keyboard – the spacebar will do nicely. The tape should now start to play through in the normal way.

Method 2

For this method you have to skip the first bit of the game program. To do that, start by rewinding the game tape to the beginning. Now type in the listing. Then type CAT and press Enter. Start the tape by pressing Play and then any key. Then watch the screen.

Soon you'll get the message Found *something* block 1. It doesn't matter what the *something* actually is; this will vary from one game to another. If the Cheat Mode instructions just tell you to skip the first block, you should stop the tape here.

If the instructions tell you to skip several things, stop the tape when the Found message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.

ALIENS

Unlimited ammunition and the ability to start in any room are two very useful pokes sent in by **Paul Bosomworth** of Townsend Estate in Bournemouth. Entered using Method 1, it is just the tonic for Electric Dreams' gripping game.

```
1 ' Aliens
2 ' by Paul Bosomworth
3 ' Amstrad Action  May 87
10 MODE 1:BORDER 0:INK 0,0
20 INK 1,26
30 SYMBOL AFTER 256
35 OPENOUT"P":MEMORY &1FFF
40 DATA 0,26,6,20,17,18,1
43 DATA 25,15,03,16,13,13
44 DATA 22,14,13
45 LOAD"!scroll"
50 LOAD"!credits",&3000
60 CALL &8000
70 LOAD"!title",&3000
80 GOSUB 110:MODE 0
85 CALL &8000
90 LOAD"!loader":GOSUB 120
95 MODE 0:CALL &8000
100 DATA 0,6,16,25,0,0,0,0
105 DATA 13,0,0,0,0,0,0,26
110 FOR n=0 TO 15:READ a
115 INK n,a:NEXT:RETURN
120 RESTORE 180
130 POKE 32931,118
135 POKE 32932,189
140 FOR a=33122 TO 33139
145 READ b:POKE a,b:NEXT
150 CLS:MODE 1
155 INPUT"ROOM (1-255)";n
160 IF n<1 or n>255 THEN 150
170 POKE 33128,n
180 DATA 33,147,27,54,0,62
190 DATA 1,33,59,02,119,33
200 DATA 79,2,119,195,64,0
210 RETURN
```

DRUID

Stephen Stokes has sent in some tips for the full working game (not the cover cassette demo). They involve typing particular words into the high-score table. So why don't you try "The Covenart", "Remember Paul Hutchinson ?", "Amstrad Action", and "Cheat mode". Remember to leave the spaces as shown, including the one before the question-mark.

Chris Ball of Kidderminster has solved the Infogrames game and brings you this advice.

The hotel: Take the bag which will appear in the bottom right of the screen. Put the cursor on the bag and fire to open it. Put the cursor on the plate on the dressing table and some money will appear in the bottom left of the screen. Pick this up with the cursor and then open the drawers on the dressing table. Pick up the pen and the gun. Open the left cupboard and pick up the iron, candlestick, flowers, torch and necklace. Open the right cupboard and get the trumpet. Leave the room.

As you move through the floors of the building the characters you meet require these objects:

Old woman with purple hair wants the iron.
Chinese man wants the candlestick.
Man with green lined suit and green hair wants flowers.
Man with glasses and pen behind his ear wants torch.
Man that looks like a waiter wants necklace.
Businessman wants pen.
Gangster wants gun.
Mick Jagger lookalike wants trumpet.

There are two other characters, a woman who gives you money and a man who you have to give money to. Once you've got rid of two objects go back to your room on the 17th floor (room 170) and get the passport and watch from the drawer. Head back down the building, returning objects until you reach floor zero. Here you can either grab a bike and cycle to the airport or phone for a taxi, but make sure it's got a driver before getting in (phoning makes the driver appear).

The airport: Enter airport and turn right to duty-free shop. Buy a sandwich and the newspaper *Mon Tricot*. Turn right twice till you face a man, who when given some money will return your passport to you. Turn back to the information board you faced when you first walked in and wait for the 1120 Las Vegas flight to appear. Wait till the 1119 has gone off the board then turn left to a customs official. Give him your passport, wait for it to be returned, then go through the middle door.

On the plane a hijacker will appear. Give him the newspaper. At Las Vegas wait for the second number-9 bus and get on it, following screen instructions from there.

Las Vegas: This is the easy part – it's just a matter of time before you get a million.

Space Harrier

An invincibility poke for Elite's super-fast shoot-em-up has been sent in by the never-sleeping **Tony Hoyle**. Entered using Method 1 it prevents you from dying when bumping into objects.

```
1 ' Space Harrier -- Tape
2 ' by Tony Hoyle
3 ' Amstrad Action  May 87
50 MEMORY 35999
60 MODE 0
70 FOR a=0 TO 15
80 READ b
90 INK a,b
100 NEXT
110 BORDER 0
120 LOAD"!screen",49152
130 OPENOUT"d"
140 MEMORY 949
150 CLOSEOUT
160 LOAD"!block",950
180 POKE &D47,&C9
200 CALL 950
220 DATA 0,26,06,0,0,09
230 DATA 02,25,15,03,16
240 DATA 10,13,21,14,20
```

Jan-Mirko Maczewski of Hildesheim, West Germany, has supplied you with invincibility for the disk version of *Space Harrier*. Just type in the listing and run.

```
1 ' Space Harrier -- Disk
2 ' by Jan Maczewski
3 ' Amstrad Action  May 87
10 OPENOUT"x":MEMORY &3B5
15 CLOSEOUT
20 LOAD"elite",&8D6D
30 POKE &8DA8,&C9
40 CALL &8D6D
50 POKE &D48,&B7
60 FOR i=0 TO 2
70 POKE &D75+i,0:NEXT
80 CALL &3B6
```

STARGLIDER

An excellent poke by **Tony Hoyle** (who seems to be going for a record-length listing) for Firebird's game. Entered using Method 1, it gives infinite everything (almost): energy, shields, laser fire, missiles, supermissiles. It even gives you a rear-view scanner at the start and the ability to fire when using it (which, incidentally, cannot normally be done).

A message `Error in line xx` likely means you made a mistake typing in data – the computer complains when it gets to line *xx* and tries to use the data. There is a checksum at the end of each data statement: if you get `Error in data` then you probably entered one of the checksums incorrectly.

```
1 ' Starglider
2 ' by Tony Hoyle
3 ' Amstrad Action  May 87
10 MEMORY &19FF
20 MODE 1
30 BORDER 0
40 WINDOW #1,15,27,10,10
50 WINDOW #2,15,27,13,13
60 x=&8000:t2=0:l=280
70 t=0
80 FOR j=0 TO 7
90 READ a$
100 a=VAL("&"+a$)
110 t=t+a
120 t2=t2+a
130 POKE x,a
140 x=x+1
150 NEXT j
160 READ c$:c=VAL("&"+c$)
170 IF t<>c THEN PRINT
   "Error in line ";l:END
180 l=l+10
190 IF x<&80E4 THEN 70
200 READ c$:c=VAL("&"+c$)
210 IF t2<>c THEN PRINT
   "Error in data":END
220 LOAD"!glider"
230 POKE &30,&C3
240 POKE &31,0
250 POKE &32,&80
260 POKE &1A6C,&F7
270 CALL &1A00
280 DATA 7a,fe,57,e5,c0,
   e1,3e,e9,057c
290 DATA 32,6c,1a,fd,e5,
   cd,e0,1a,0461
300 DATA cd,82,1a,cd,eb,
   1a,be,28,0421
310 DATA 07,06,00,cd,4a,
   1b,18,ed,0244
320 DATA 01,00,f6,ed,49,
   f3,e1,2e,042f
330 DATA 00,ed,5b,18,11,
   1a,ae,24,025d
340 DATA ae,25,12,2c,1c,
   20,f6,ed,0330
350 DATA 5b,18,11,21,40,
   01,1a,ae,01ae
360 DATA 77,1c,2c,20,f9,
   cd,37,bd,0399
370 DATA ed,5b,18,11,2a,
   1a,11,1a,01e0
380 DATA ae,77,23,1c,20,
   f9,3a,1d,02d4
390 DATA 11,bc,20,f3,cd,
   00,30,fb,03d8
400 DATA 3e,01,cd,b4,bb,
   3e,03,cd,0389
410 DATA 96,bb,3e,02,cd,
   b4,bb,3e,040b
420 DATA 03,cd,96,bb,21,
   82,80,11,0355
430 DATA 80,00,01,61,00,
   ed,b0,c3,0342
440 DATA 80,00,3e,39,01,
   02,01,cd,01c8
450 DATA 00,1c,01,01,01,
   cd,38,bc,01e0
460 DATA 3e,0f,01,00,00,
   f5,cd,32,0242
470 DATA bc,f1,3d,fe,ff,
   20,f3,01,04fb
480 DATA 10,27,0b,78,b1,
   20,fb,3e,02c4
490 DATA 3a,cd,00,1e,af,
   32,fa,37,0337
500 DATA 32,fb,37,32,09,
   38,32,0a,0213
510 DATA 38,32,19,38,32,
   1a,38,32,0171
520 DATA 8f,58,32,9c,61,
   32,0a,63,02b5
530 DATA 32,0b,63,32,37,
   63,32,38,01d6
540 DATA 63,32,64,63,32,
   65,63,32,0288
550 DATA f6,64,32,f7,64,
   32,07,65,0385
560 DATA c3,fe,11,00,00,
   00,00,00,00f2
570 DATA 55ea
```



Tips for Durell's dragon game come from **Julian Thomlinson** of Carlisle.

Men: don't really pose any problems, just have fun dropping them from a great height.

Birds: can be avoided by flying at full speed, moving up and down all the time. If one tries a dive, slow down and it will dive in front of you, allowing you to burn it.

Sea serpents: simply fly at full speed at the very top of the screen.

Falling rocks: can be avoided by flying very low at varying speeds – fast, slow, fast etc.

Giant spiders: are pretty nasty. As with the birds, fly fast and move up and down, don't slow down. If the girl is knocked off, land as quickly as possible and let her climb back on.

Two-headed dragon: after the second castle, fly along a bit, then land and start walking. As the dragon flys over, flame at him. If you hit he will land. Fly over him and burn again, then land. As he flys over again finish him off.

Panthers: appear just before the final castle. Either fly behind them and pick them up or burn them.

Refuelling: go back to find a witch between two stakes, land and then take off immediately. A knight will appear. Pick him off his horse, then land and eat the witch.



SUPER ROBIN HOOD

This Codemasters cheapo has been given the once-over by **Peter Featherstone**. A super Super Robin Hood is what you get – he's invulnerable. The poke is entered using Method 1.

Peter informs us that there is an in-built cheat for the game. It does one of three things: increases your health by 10, sets all the lifts into action without use of the keys, gives you all the hearts necessary to complete the game.

To use the cheat you must start playing the game; at any point after that press the keys 6, A and P simultaneously. The computer will call you a cheat. Pressing E will give you extra health (or energy); K sets the lifts into action and H collects all the hearts. The required key should be held down until play resumes – the border will change colour to signify the cheat is operative.

```
1 ' Super Robin Hood
2 ' by Peter Featherstone
3 ' Amstrad Action  May 87
20 FOR f=&BE00 to &BE07
30 READ a$
40 POKE f,VAL("&"+a$)
50 NEXT f:LOAD""
60 POKE &AC92,0
70 POKE &AC93,&BE
80 CALL &AC01
90 DATA 3E,C9,32,91
95 DATA 6C,CD,D0,76
```

Ian Grainger of Ulingate, County Durham, has also been busy poking around Robin Hood: extra speed and infinite health are his speciality. The poke, entered using Method 1, has an interesting side-effect: spiders can be used as convenient lifts. One final tip sent in by Ian: typing PANDA in the high-score tables gets an interesting message.

```
1 ' Super Robin Hood
2 ' by Ian Grainger
3 ' Amstrad Action  May 87
10 MEMORY &1CEB:MODE 0
20 BORDER 0
30 RESTORE 290
90 add=&A540
100 WHILE add<&A55F
110 READ a$
120 POKE add,VAL("&"+a$)
130 add=add+1
140 WEND
160 RESTORE 340
170 col=0
180 WHILE col<16
190 READ a,b:INK col,a,b
200 col=col+1
230 LOAD"!robpict",&C000
240 LOAD"!robin1",&1CEC
245 ' Speed
250 POKE &6122,0
255 ' Health
260 POKE &6C98,&C9
270 CALL &A540
290 DATA 06,06,21,57,A5,11
300 DATA 00,10,CD,77,BC,21
310 DATA 40,00,CD,83,BC,CD
320 DATA 7A,BC,CD,D0,76,72
330 DATA 6F,62,69,6E,32,00
335 DATA 00,00
340 DATA 0,0,26,26,6,6,18
350 DATA 18,9,9,26,26,6,6
360 DATA 18,18,13,13,0,06
370 DATA 0,18,18,24,24,03
380 DATA.3,16,16,23,23
```

Howard's Way

Phil Howard of Mapperley has departed from his usual poking practices and found some tips that don't require pokes at all.

Impossaball: on the starting screen press the keys C H E A T together, then press L to change the start level.

Ghost Hunters: at any time press Del to pause the game, then type COMPLEX. This will put you into the cheat mode and restore the energy bar. By pressing different letter keys it is possible to move from room to room. Pressing Enter restarts the game, pressing Space restarts the game and activates the lifts.

Killapede: at any time pause the game by pressing Delete, then press keys A6P together to increase lives. Restart by pressing Clear.

Here is a classy set of pokes from **John Blackburn** in Cambridge. Entered using Method 1, it gives infinite shuttles, 100% shields, prevents flying aliens from shooting and evens fixes a bug, allowing the shuttle to move diagonally northeast when you use the keyboard. You can also choose the type of game you wish to play: either maze-only or alien-zapping – remove the data you don't require.

John has also provided a few hints:

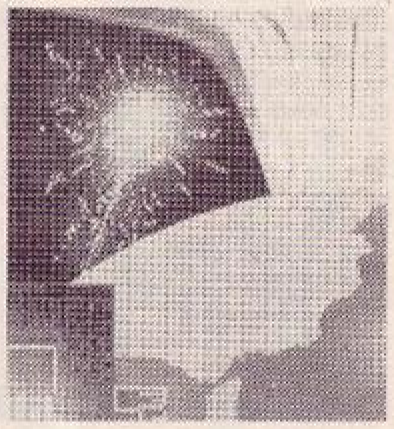
▶ It isn't necessary to decode the alien messages – they probably don't mean anything (apart from the decimal counter).

▶ The 30 computer bases you have to reach are at the following locations:

9	2	39	1	68	3
17	2	42	3	73	3
19	3	45	3	75	1
21	2	49	2	78	2
22	3	50	1	83	2
24	3	51	1	84	1
25	1	55	3	88	2
28	2	58	3	89	3
32	1	63	3	94	3
37	3	67	2	98	2

Select map. Move arrow with cursor keys or joystick. Press Enter to return to TV mode. Enter again to hyperspace. Del to launch shuttle.

```
1 ' Xcel
2 ' by John Blackburn
3 ' (modified by RoM)
4 ' Amstrad Action  May 87
10 MEMORY &9BFF
20 LOAD"!",&9C00
30 i=&9C1E
40 WHILE a$<>"ff"
50 READ a$
60 POKE i,VAL("&"+a$)
70 i=i+1:WEND:CALL &9C00
80 DATA 3e,c9,32,26,32,cd
90 DATA 00,30,21,ce,07,11
100 DATA d0,93,3e,15,cd,a1
110 DATA bc,3e,00,32,a4,33
120 DATA 3e,c9,32,25,41,21
130 DATA 00,00,22,2d,55,21
140 DATA cb,47,22,84,2a
150 ' Maze only
160 DATA 3e,c9,32,ce,24
170 ' alien-zap only
180 DATA 3e,b4,32,74,23
190 DATA c3,5d,6a
200 DATA ff
```



Deep Strike

Peter Featherstone of Leeds has been kind enough to supply your *Deep Strike* fighter and bombers with armour-plated propellers. Not only that, you have an unlimited supply of bombers. The poke is entered using Method 2 – wind the cassette past the block named DEEP then run the poke listing.

```
1 ' Deep Strike
2 ' by Peter Featherstone
3 ' Amstrad Action  May 87
10 BORDER 0:INK 0,18
11 INK 1,26:INK 2,6
12 INK 3,2:MODE 1
20 OPENOUT"Y":MEMORY 999
30 OUT &BC00,1:OUT &BD00,32
40 OUT &BC00,2:OUT &BD00,42
50 OUT &BC00,6:OUT &BD00,24
60 FOR f=&BE00 TO &BE23
70 READ a$
80 POKE f,VAL("&"+a$):next
90 CALL &BE00
100 DATA 21,00,86,11,64,00
110 DATA 3E,16,CD,A1,BC,21
120 DATA 14,BE,22,47,86,C3
130 DATA 00,86,3E,C9,32,E0
140 DATA 57,32,77,57,AF,32
150 DATA 29,57,CD,98,23,00
```

1942

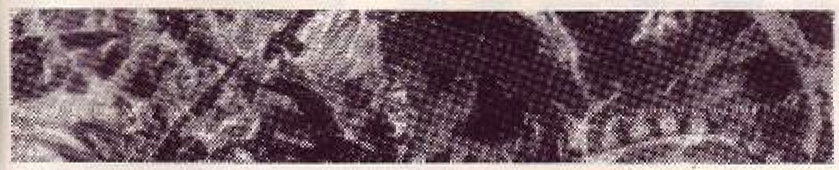
The Mapperley hacker, **Phil Howard**, has sent in a batch of "I don't know whether I really want to cheat" cheats. Enter by Method 1, and the Roll key is now the space-bar rather than 1. You also have infinite rolls and auto-repeat firing. Attain extra lives by pressing the + key –what else?

```
1 ' 1942
2 ' by Phil Howard
3 ' Amstrad Action  May 87
10 DATA 21,00,05,11,58,02
20 DATA 01,10,A4,ED,B0,21
30 DATA BE,02,36,2F,AF,32
40 DATA BF,02,32,95,29,21
50 DATA 20,BE,22,E6,0F,C3
60 DATA B3,89,CD,1E,BB,C0
70 DATA 3E,1C,CD,1E,BB,C8
80 DATA 3E,05,32,C0,24,21
90 DATA 28,C1,CD,CC,26,E1
100 DATA C3,0E,0F
110 Y=0:OPENOUT"Y"
120 MEMORY &4FF
130 FOR X=&BE00 TO &BE38
140 READ A$:A=VAL("&"+A$)
150 POKE X,A:Y=Y+A:NEXT
160 IF Y<>&1601 THEN 190
170 LOAD"1942",&500
180 CALL &BE00
190 PRINT"DATA ERROR!"
```

IKARI WARRIORS

Someone known only as **Mark** of Ealing, London, has supplied a disk poke for Elite's multi-player (well two-player actually) shoot-em-up. Infinite lives are up for grabs. Owners of the cassette version will be glad to know that a Method 1 entry will let you use this poke.

```
1 ' Ikari Warriors
2 ' by Mark d'Ealing
3 ' Amstrad Action  May 87
20 MODE 1
30 OPENOUT"Y"
40 MEMORY &12BF:CLOSEOUT
50 INPUT"Lives (1-255)";v
60 IF v<1 OR v>255 THEN 50
70 LOAD"!SCREEN"
80 LOAD"!WARRIORS"
90 POKE &6EAB,v
100 POKE &692A,111
100 CALL &FFD0
```



ELITE COMPLETE

Yes, there have been lots of *Elite* pokes in the past. No, these are not reprints of them. **Cpl Thomas** of Stathan, after weeks of hex-sifting, has brought you a comprehensive list of pokes for the disk version of this epic game.

The list of options you can alter is long; kept in REM statements, they tell you exactly what each poke will do. It is best to remove the lines in the listing that you do not require. Note that the poke for infinite cargo-bay size needs to alter one file on the *Elite* disk – be very careful when typing this part of the listing.

And by the way, this is the last *Elite* poke you will see. After you look at these, we think you'll agree: there's nothing else you *can* do.

```
1 ' Elite - disk
2 ' by Col Thomas
3 ' Amstrad Action
40 MODE 1:BORDER 0:INK 0,0
50 INK 1,24:INK 2,15:INK 3,6
60 WINDOW #1,14,26,12,12
70 WINDOW #2,14,26,14,14
80 LOAD"picture",&C000
90 OPENOUT"D"
100 MEMORY &83F
110 CLOSEOUT
120 LOAD"largeaxx",&840
130 LOAD"commonxx",&1A40
140 LOAD"common2x",&C000
150 ' ** THE POKES **
160 ' INFINITE FUEL
170 POKE &4F02,0
180 ' INFINITE MISSILES
190 POKE &3820,0
200 ' NO HYPERSPACE RANGE
   LIMIT
210 POKE &4C08,0:
   POKE &4C12,0
220 ' CONSTANT GALACTIC
   HYPERJUMP FACILITY
230 POKE &4BFA,0
240 ' CONSTANT ESCAPE POD
250 POKE &3849,0
260 ' NO CARGO LOSS ON USE
   OF ESCAPE POD
270 POKE &3866,0
280 ' NO ENERGY LOSS
290 POKE &35CB,0
300 ' NO LASER TEMPER TURE
   RISE
310 POKE &7A4F,0
320 ' ONE HIT TO DESTROY
   ENEMY SPACESHIPS
330 POKE &7AA8,0
340 ' SPACE STATIONS LAUNCH
   THARGOID SHIPS
350 POKE &896B,0
360 ' MISSSILES ARE ABLE TO
   BLOW UP SPACE STATIONS
370 POKE &8A8F,0
380 ' CLOAKING DEVICE
   (Y-KEY)
390 POKE &4902,&21:POKE
   &4906,&F6:POKE &4908,0
400 ' INFINITE CREDITS
410 POKE &FE78,3:
   POKE &FE86,&18
420 ' ECM SYSTEM JAMMER
430 POKE &8932,&18:
   POKE &48C3,0
440 POKE &48CD,0
450 ' CONSTANT ENERGY BOMB
460 POKE &2F6A,0
470 ' REMOVE BLINDING
   FLASH FROM ENERGY BOMB
480 POKE &2F7A,&C9
490 ' MAKE YOURSELF
   INDESTRUCTABLE
500 POKE &787C,0:POKE
   &7B61,0:POKE &1E63,&C3
510 ' START PROGRAM
520 CALL &1C82
530 '
540 ' THIS BIT GIVES YOU
   INFINITE CARGO CAPACITY.
   IT DOES ALTER ONE OF THE
   FILES ON YOUR DISK--TAKE
   CARE WITH TYPING AND
   ENSURE THE WRITE-PROTECT
   TAB IS OFF. IF YOU WANT
   THE OPTION, TYPE GOTO 550
550 OPENOUT"y":MEMORY &83F
560 CLOSEOUT
570 LOAD"largeaxx",&840
580 POKE &998,0
590 a$="largeaxx.bin":
   ERA,@a$
600 SAVE"largeaxx",b,&840,
   &1200
610 ' IF YOU WISH TO PUT THE
   PROGRAM BACK INTO ITS
   ORIGINAL FORM USE THE
   SAME AS ABOVE. JUST
   CHANGE POKE &998,0 TO
   POKE &998,&19
620 '
```

MOON CRESTA

Have you wanted an increased docking time for Incentive's coin-op game? **Roger** "I've become addicted to hacking" **Payne** of Alcester, Warwickshire, has found just the poke (entered via Method 1). It gives you 99 seconds to complete docking; allowing bonuses around the 10,000 mark, rather than the more usual 2,000.

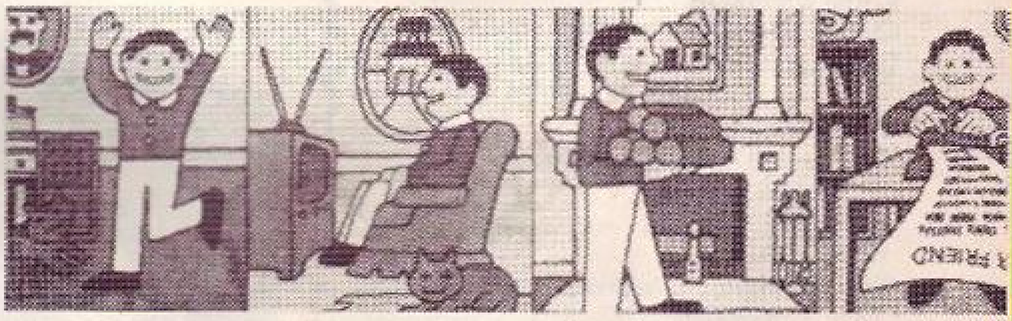
```
1 ' Moon Cresta
2 ' by Roger Payne
3 ' Amstrad Action  May 87
10 MEMORY &9FFF
20 LOAD"cresta"
30 POKE &A09F,&10
40 POKE &A0A0,&A1
50 FOR a=&A110 TO &A117
60 READ a$
70 POKE a,VAL("&"+a$)
80 NEXT a
90 DATA 3e,30,32,1a
95 DATA 56,c3,c2,74
99 CALL &A000
```

LITTLE COMPUTER PEOPLE

"If your Little Computer Person is a balding old fogey who always wants to play the piano, the LCP Eviction Kit is what you need." Thanks, **Peter Featherstone** of Leeds!

Please note that this poke does alter the game disk. This means that if you enter it incorrectly you may damage the program. You should make very sure you've typed it in correctly – we bear no responsibility for any mistakes. Alternatively you could make a back-up copy of *LCP* onto another disk. Type in and run the listing: the *LCP* disk will run as normal, but your old LCP will have been evicted – a new one taking its place.

```
1 ' LCP
2 ' by Peter Featherstone
3 ' Amstrad Action  May 87
20 MEMORY &1FFF
30 LOAD"BOOT"
40 POKE &8020,&FB
45 POKE &8021,&C9
50 CALL &8000
60 POKE &20C3,0
65 POKE &251A,0
70 POKE &2DD2,0
80 CALL &2000
```



How to win an ENTIRE ISSUE'S Rave software

All you have to do is produce an excellent map, poke or playing tips. The best solution will win a copy of every Rave and the Mastergame from the issue in which the solution is printed. The number of games will vary of course, but you can expect at least £50 worth of software and some months over £100. We also give out five runners-up prizes every month – the Mastergame or one of the Raves in that issue.

Joint winners this month because I couldn't split them apart for quantity or quality. The two winners are **Peter Featherstone** for *Deep Strike*, *LCP* and *Robin Hood* pokes, and **Tony Hoyle** for *Starglider*, *Impossaball* and *Space Harrier* pokes. They'll both receive a copy of the Mastergame and we'll split the Raves between them.

That leaves us with four worthy runners-up: **Paul Bosomworth** for his *Aliens* poke, **Cpl Thomas** for his *Elite* poke, **John Blackburn** for his *Xcel* poke, and **Chris Ball** for his *Inheritance* tips.

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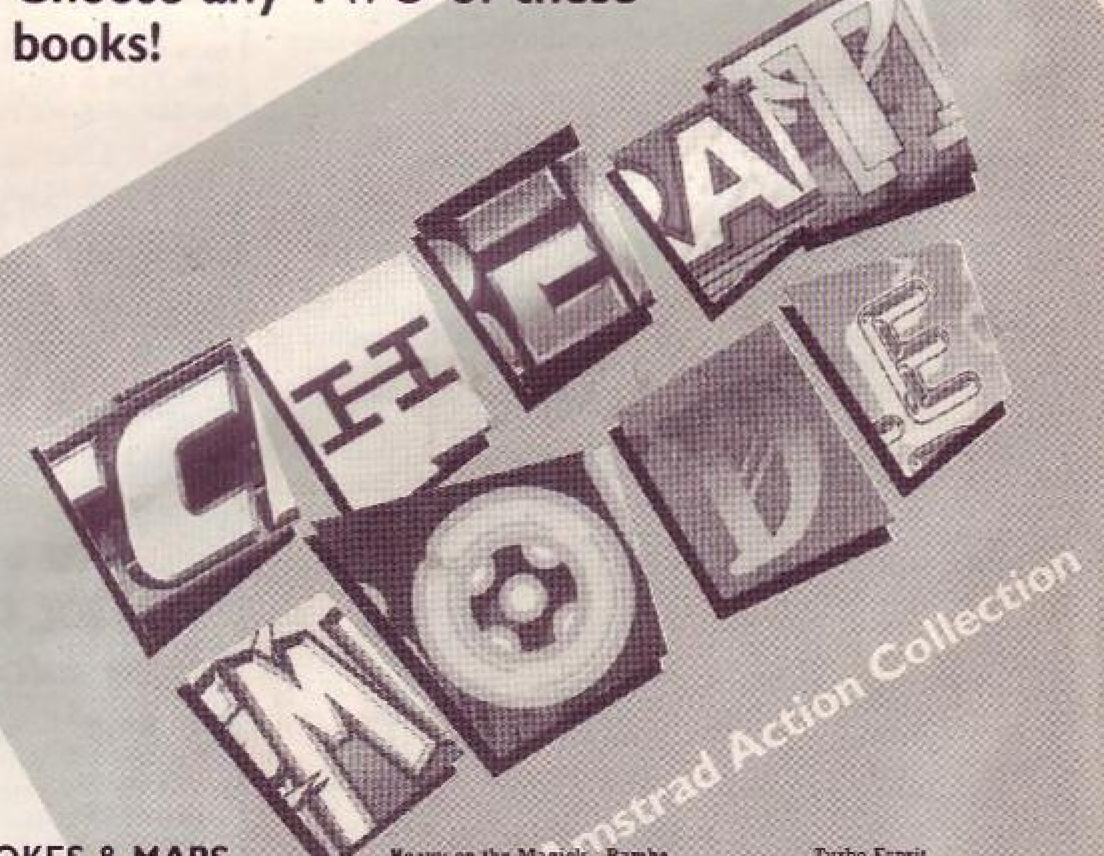
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POKES & MAPS

The book includes POKES mostly for infinite lives, on all the following games: (Some work only with cassette version.)

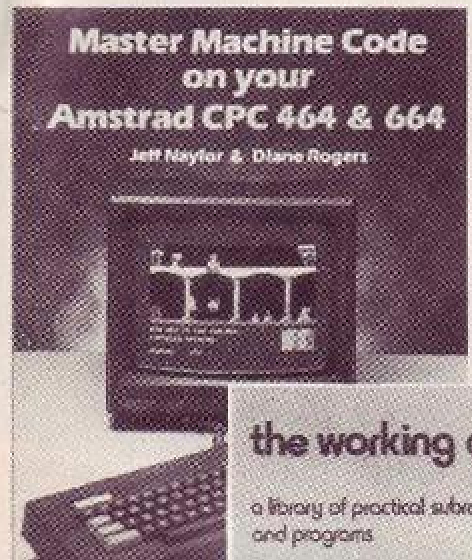
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Amsgolf
The Apprentice
Batman
Beachhead
Blagger
Bombjack
Boulderdash
Bounder
Bounty Bob
Brian Bloodaxe
Cauldron
Caves of Doom
Chiller
Chuckie Egg
Classic Axiens
Classic Invaders
Combat Lynx
Commando
Contraption
Covenant
Defend or Die
Doomdark's Revenge
Electro Freddy
Everyone's a Wally
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Finders Keepers
Gauntlet
Get Dexter
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Green Beret
Gyroscope
Heavy on the Magick
Herbert's Dummy Run
Highway Encounter
Hunchback
Jack the Nipper
Jet Set Willy
Karl's Treasure Hunt
Killapede
Killer Gorilla
Knightlore
Kung Fu
Laserwarp
Last V8
Lightforce
Monty on the Run
Mr Punchy
Nexor
Nomad
Nonterraqueous
Number 1
Obsidian
One Man & Droid
Pinball Wizard
Powerplay
Pyjamarama
Rambo
Revolution
Roland Goes Digging
Roland on the Ropes
Roland in the Caves
Roland in Space
Saboteur
Sabre Wulf
Sorcery Plus
Soul of a Robot
Spellbound
Spindizzy
Stainless Steel
Starion
Starquake
3D Starstrike
STORM
Super Sleuth
Sweevo's World
Swords & Sorcery
Tau Ceti
Terra Cognita
Thrust
TLL
Trailblazer
Turbo Esprit
Who Dares Wins II
Wreckless Roger
Z

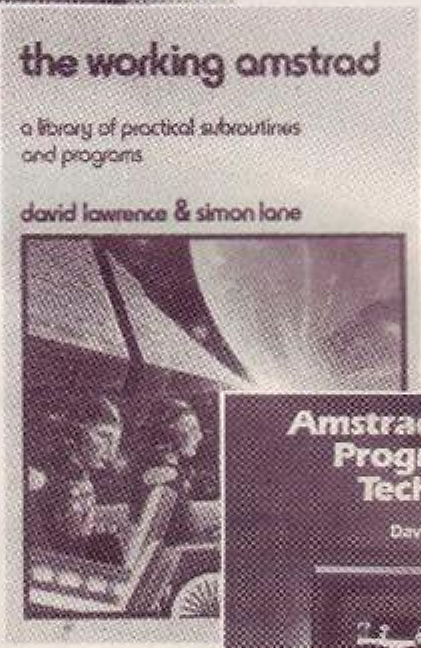
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Sorcery Plus
Soul of a Robot
Nonterraqueous
Sweevo's World
Willow Pattern
Get Dexter
The Covenant
Batman
Cauldron II
Knight Tyme
Jack the Nipper
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Heavy on the Magick
Price of Magik
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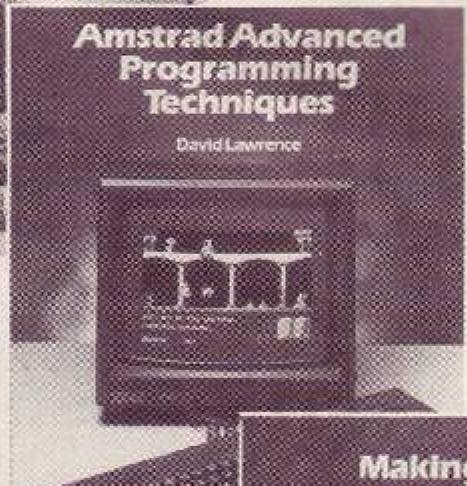
CHEAT MODE: The Amstrad Action Collection 85-86

This is the publication you've been clamouring for. It gives you under a single cover all the Cheat Mode pages and most of the game-maps printed in the first 16 issues of Amstrad Action. Literally hundreds of Pokes, Tips, mini-articles and maps are included. And to help you find your way around there's a specially-compiled index allowing you to turn instantly to the game you need help on.

The book, which is printed on high-quality paper with a glossy, colour cover, begins with a special introduction by Bob Wade. It looks good, and we think you'll love it. If you can't master a game after wading through this little lot, you're beyond hope...









MASTERING MACHINE CODE ON YOUR AMSTRAD

Ready to make the plunge? This book is for people who want to go straight to the heart of their Amstrad and unleash the speed and power of machine code programming. Authors Jeff Naylor and Diane Rogers have aimed it at the beginner, while at the same time offering various programs and routines of interest to more advanced machine code programmers. These show how to write a database program, how boost the graphics, how to produce graphs.

There are also chapters on sorting and on how to use RSX commands.

To get the most out of the book you may need to buy an Assembler program to allow you to input machine code programs more easily, although the book can stand alone as a good introduction to the subject. 146 pages plus index.

THE WORKING AMSTRAD

This book is basically a cleverly-presented library of type-in programs for people who want to put their computer to good use.

Programs included are Graph, Pie-Chart, four separate clock and timer utilities, 3D bar chart, customised character set, high resolution designs, music, unifile – a personal powerful filing system, Name and number dictionary, Text-ed, MultiQ, Banker, and Accountant.

The working of each program is explained in detail, so you should be able to tailor them to your own requirements. And what makes the book particularly good is that each program is divided into separately explained modules – you automatically learn structured programming as you go along.

216 pages of high-quality material.

SPECIAL OFFERS

BACK ISSUES

£1.35 or £1.85 each including P&P

If you're a more recent convert to Amstrad Action, why not catch up on some of the great issues you missed. The back issues still in stock at time of going to press are listed on the order form.

The three higher price issues include a cover mounted cassette packed with good software. Issue 4 included two Ocean games, Issue 8 featured The Covenant from PSS and issue 16 had level two of Firebird's Druid plus a host of other smaller programs.

AMSTRAD ADVANCED PROGRAMMING TECHNIQUES

If you think it's time you got a bit deeper into programming your CPC you should get hold of this book by experienced computer author David Lawrence. Using dozens of working programs and utilities, he shows how to develope serious applications on the 464, 664 and 6128.

Chapter and section headings include: Modular programming, Debugging, Interpreting error messages, Strings, Garbage collection, Inputting information, INKEY$ and timed response, Error trapping, Storing and Retrieving, Making use of EOF, The principles of Sorting, The bubble sort, The delayed replacement sort, The Shell-Metzner sort, Data structures, Storing directly in free memory, Pointer strings, The Black Hole problem, Binary searching, Pure searching.

152 pages with index.

MAKING MUSIC ON THE AMSTRAD

Ian Waugh's 181 page book is aimed at allowing you to take full advantage of the Amstrad's sophisticated sound facility. Chapter and section headings include: What is Music?, The Sound Command, Programming Scales and Ptiches, ENV and ENT – the Volume and Tone Envelopes, Zaps and Zings and other things, Playing the Amstrad, Making Micro Music, Producing echoes, Delay effects, White noise, Simple sound effects, Designing a rhythm unit, Soundscapes, The Amstrad synthesizer, Altering the bass riff, Saving the tune, Using chords, Improving the melody, Sing-along-a-matic.

There are numerous program listings and examples to show you the way. Great value for any CPC owner with an interest in Sound.

HOW TO GET THESE BOOKS

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A 64K memory upgrade will allow your 464 or 664 to run many of the programs which can currently run only on a 6128, while the 256K upgrade offers 6128 owners vast extra storage. They simply plug into the back of your computer and are used in conjunction with the supplied "bank-switching" software.

The Silicon Disc System allows you to set up a 64K drive B (or C) which will operate faster than an ordinary disc drive (although data must be transferred off it before the computer is switched off.) The System operates from AMSDOS or CPM 2.2 (but not CPM Plus), and if you have a 464, you will also need a normal disc drive connected.

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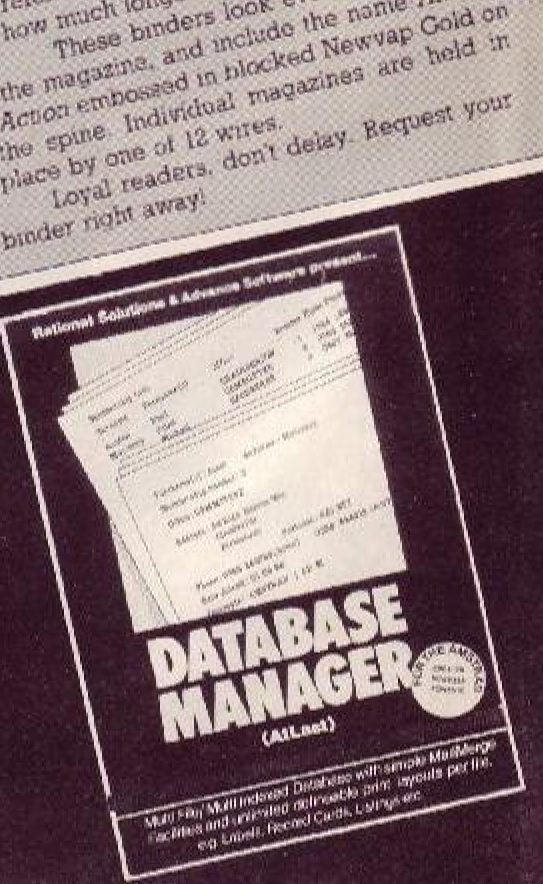
This program from Advance Software and Rational Solutions is probably the best database you can buy for a 6128. It's fast, full-featured, powerful and well-tailored to the needs of the machine.

It's also extremely flexible, so you can customize it to a huge range of situations where information needs to be organised and quickly recalled or analysed. An address file, a customer list, a record of your massive LP collection. Whatever.

Features include:

- Easy layout of forms using the built-in text editor.
- Number of records limited only by disk space (up to 32,000).
- You can set up relationships between data in different files – very powerful facility!
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- Powerful data-transfer utility, making it easy to upgrade to this program.
- Nine field types, including normal alpha-numeric, three numeric types, date, hours-minutes-seconds, automatic serial numbering.
- Detailed manual and sample data supplied.

All in all, a wonderful way of putting your Amstrad 6128 to serious use.



TÍR NA NÒG

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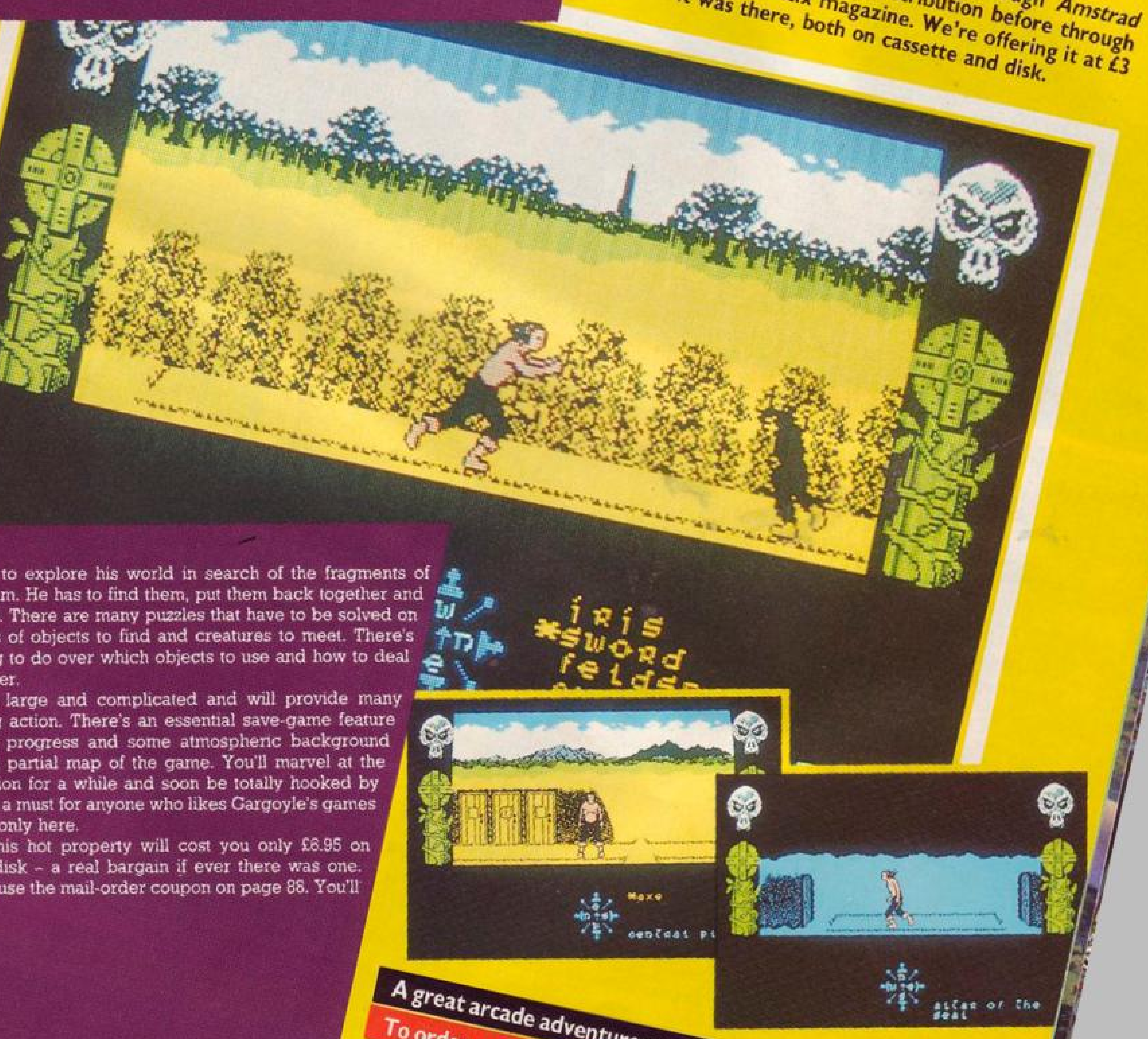
Tir Na Nog is exclusively available through *Amstrad Action*. It's had only limited distribution before through the now-defunct *Amtix* magazine. We're offering it at £3 less than it was there, both on cassette and disk.

AGOG AT TIR NA NOG

The history and the legend of the Celtic land of youth
Only £6.95 cassette, £10.95 disk

Gargoyle Games has been responsible for one of the most original, testing and absorbing series of arcade adventures ever. *Dun Darach*, *Marsport* and *Heavy on the Magick* had us all wandering around delightfully atmospheric worlds using gloriously animated, large characters. *Tir Na Nog* (the land of youth) was the prequel to all these and started off the Gargoyle legends but it's never been released for the Amstrad before.

The game stars Cuchulainn, the same strapping character that appears in *Dun Darach* and walks about with his hair flapping in the breeze and real purpose in his stride. You can't die in *Tir Na Nog* because Cuchulainn has already left the land of the living. Like *Dun Darach* this is a complicated map of pathways and locations that feature some great graphic backgrounds.



Cuch has to explore his world in search of the fragments of the Seal of Calum. He has to find them, put them back together and activate the Seal. There are many puzzles that have to be solved on the way and lots of objects to find and creatures to meet. There's plenty of puzzling to do over which objects to use and how to deal with each character.

The game is large and complicated and will provide many hours of absorbing action. There's an essential save-game feature for recording your progress and some atmospheric background notes that include a partial map of the game. You'll marvel at the graphics and animation for a while and soon be totally hooked by the adventure. This is a must for anyone who likes Gargoyle's games – and you can buy it only here.

To get hold of this hot property will cost you only £6.95 on cassette or £10.95 on disk – a real bargain if ever there was one. To order the game just use the mail-order coupon on page 88. You'll never regret it.

A great arcade adventure at a remarkable price

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For details of special offers, see previous pages

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Amstrad Action's unique service can supply all the software you need

Much of this magazine is dedicated to telling you in detail about the fantastic range of software available on the Amstrad CPC computers. But we can do more than inform you about it. We can deliver it direct to your home. All it takes is a few moments of decision making on your part, a visit to the post box or a quick phone call, and your choice of software arrives, like magic, on your doormat.

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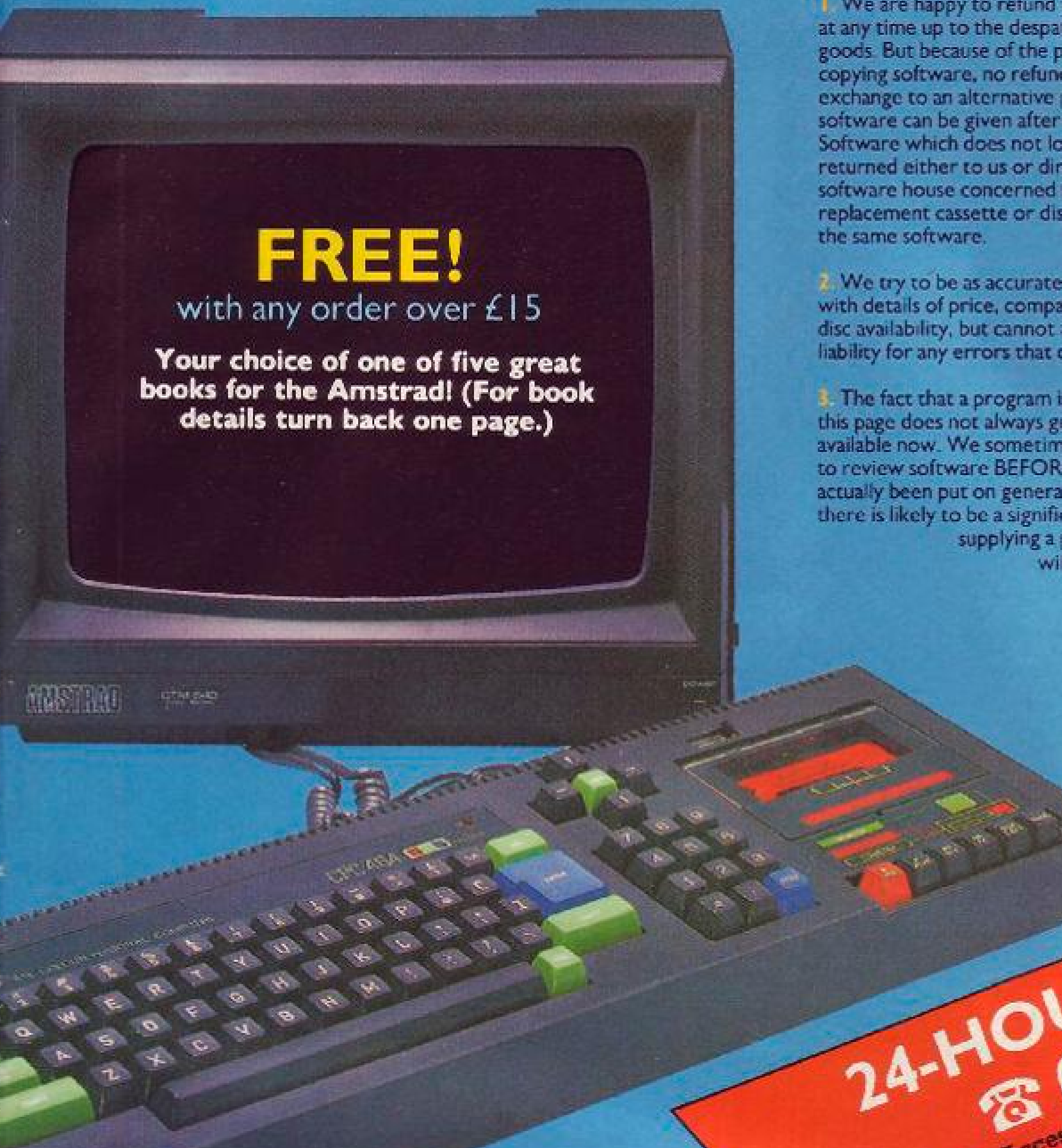
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2. We try to be as accurate as we can with details of price, compatibility and disc availability, but cannot accept liability for any errors that creep in.

3. The fact that a program is listed on this page does not always guarantee it is available now. We sometimes are able to review software BEFORE it has actually been put on general release. If there is likely to be a significant delay in supplying a program we will notify you.

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REAR VIEW

Another look at the strange world of computing and the even stranger world of Sugarman

© AMSINCLAIR?

Some companies are very protective over their trademarks. Amstrad has recently taken action to stop what it considers abuse of its. First the company reminded everyone who now owns the trademark "Sinclair":

Then its legal hawks swooped on a company called Crown Computer Products (featured in our customizing feature this issue) which was calling its anti-radiation screen the "Amsfilter". Amstrad objected to the use of the letters AMS (*amstrad stands for* **A**lan **M**ichael **S**ugar **trading**).

The screen is now called "Crown Filter."

So what's next? Perhaps we won't be able to use the letter A. In which cose muking a mogozine is going to be u lot herder thon it wes.

We write on behalf of our client Amstrad Plc. We wish to advise you, on the record, that our client purchased the trademark 'Sinclair' in April 1986 from Sinclair Research Limited. Only Amstrad Plc has the right to call a computer a 'Sinclair'.

Any computer put on the market by Cambridge Computers Limited, Sinclair Research Limited, Sir Clive Sinclair or others should not be referred to as a 'Sinclair'.

Amstrad's purchase of the Sinclair trademark and brand name was well publicised at the time, and I have been asked to make it known that Amstrad will take whatever action is necessary to protect its rights regarding the 'Sinclair' name.

In effect, it is important that you never describe any computer as a 'Sinclair', unless it has been made and marketed by Amstrad Plc.

SAVING MY BACON

Now I've heard everything. There's going to be a computer game based on a magazine called *Oink*, where you play the part of the editor, Uncle Pigg. Also featured is Rubbish Man and other regulars in the sty. Let's hope the game doesn't have realistic graphics, sound-effects or smellyvision, although a certain porcine fancier at Future Pub (no names, no pack drill) can't wait to get his/her trotters at the keyboard. Will it be an *AA* Ma-sty-game? Will you find any porks for Cheat Mode? And will I please stop hamming it up, larding out the column with these boaring jokes?

YOURS ILLEGIBLY

You see some funny signatures in our business, but this one really is a classic.

Yours sincerely

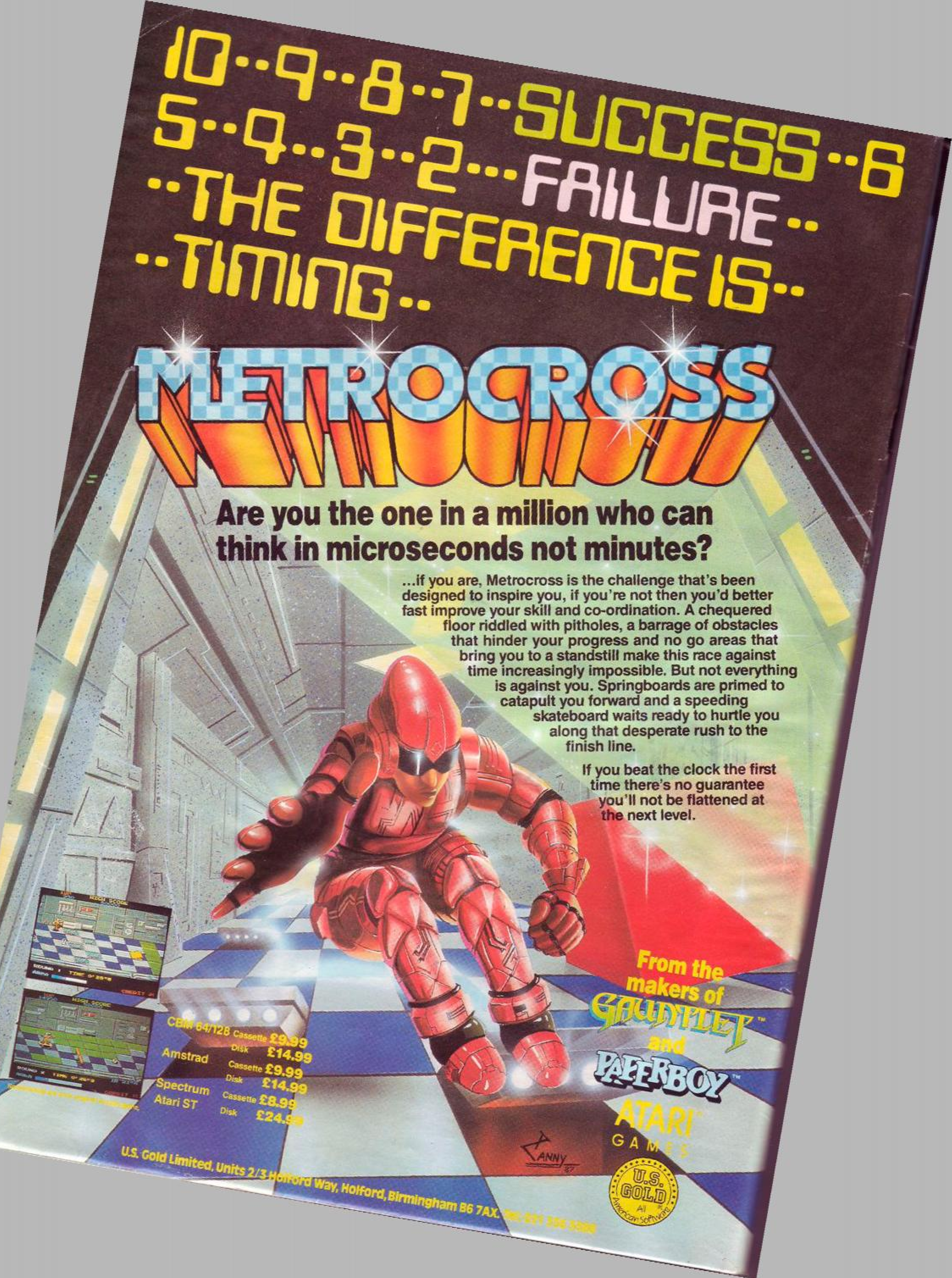


Suggestions on a postcard for who it is. Surely the ultimate in signatures, unless of course *That's Life* knows different.



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